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THE

# MEDICAL JOURNAL OF AUSTRALIA

VOL. II.—10TH YEAR. SYDNEY: SATURDAY, NOVEMBER 24, 1923. No. 21.

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## JENNER (1749-1823).


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### Introduction.

PERHAPS I may lay claim to be somewhat familiar with the life and work of the immortal Jenner, seeing that it was this subject that I chose for my address when President of the Section of Medicine at the New Zealand Congress of 1896 and that I again dealt with it in some extension lectures at the Adelaide University in 1901. During a visit to England in 1908 I made a pilgrimage to the Vale of Berkeley and thus became familiar with the environment of Jenner's early and middle life and of his later days.

Fortunately for Jenner he had a Boswell in the person of Dr. John Baron, who was the leading physician in practice at Gloucester about a century ago. Dr. Baron, however, laboured under serious disadvantages: for instance, he did not make Jenner's acquaintance till ten years after the publication of the famous "Inquiry." Still, Baron's "Life of Edward Jenner"[1] is our only source of information about Jenner; other writers apparently having drawn extensively upon this work, which was published some fifteen years after Jenner's death. Happily, Jenner had a habit of keeping letters and those from John Hunter have a double interest as throwing light upon the characters and work of both of these great men. The main defects of Baron's book are his too obvious adoration of his friend and his intolerance of any criticism of the "discovery." Nowadays, its language might be considered a trifle stilted and his pedantic arguments suggest that he felt that he held a special brief to prove from descriptions of plagues by ancient writers that they were familiar with smallpox as a separate entity.

### His Birthplace.

Edward Jenner was born on May 17, 1749, at the Vicarage of Berkeley, in Gloucestershire. Berkeley is a little town about equidistant—some sixteen miles or so—from the two great cathedral cities of Gloucester and Bristol and it is situate on the right bank of a river known as the Little Avon, about a mile or two from where it joins the Severn. In Jenner's day the town had a population of probably about five hundred inhabitants, and it boasted of a mayor and corporation: it was the market centre of the Vale of Berkeley, a district long noted for its dairy farming. Like so many other towns that date from feudal times, the town of Berkeley

[1] Read at a meeting of the South Australian Branch of the British Medical Association on September 27, 1923.

originally grew up under the protection and shadow, as it were, of Berkeley Castle which stands on rising ground above the river and has for some eight centuries been the seat of the noble family of that name, who in Stephen's reign dispossessed and then intermarried with the former owners and changed their name from that of Fitzhardinge. Berkeley Castle is the place where Edward II. is reputed to have been murdered.

A short distance from the castle stands the ancient parish church and the vicarage. The presentation to this living was presumably in the gift of Lord Berkeley and was bestowed by the fourth earl on his former tutor, the Reverend Stephen Jenner, who had married a daughter of the former vicar, the Reverend Henry Head, who held also a prebendary stall in Bristol Cathedral.

### His Family.

Of Jenner's mother we read nothing beyond this bare fact nor do we know when she died. His father was a pluralist, for he was also Rector of Rockhampton, and we read that he was "devout." He could afford to be, for, apart from his clerical appointments, he derived an income from landed property in Gloucestershire and Worcestershire. He was, in fact, more than a parson; he was what has been termed a "squarson," a squire and parson rolled into one. As such he would be eligible to mix on terms of intimacy with the family at the castle, between whom and the mere townsmen of Berkeley there would be a great gulf fixed some two centuries ago. As Jenner's father died in 1754, the child being only five years of age, it cannot be assumed that parental influence had a great share in the development of his genius, but the place of his father was affectionately and judiciously filled by his eldest brother, Stephen, who like the father was Rector of Rockhampton, though I cannot find that he ever became Vicar of Berkeley.

Jenner himself appears indeed to have had a narrow escape from becoming a parson, for another elder brother, Henry, was a pluralist and included Rockhampton amongst his livings, whilst a brother-in-law was Rector of Eastington and his son again became Rector of Rockhampton and another brother-in-law was a parson.

The family could afford to send their sons to Oxford; indeed in a letter Jenner says that he was the only one of a long line of ancestors and relations (*sic*) who had not been educated there. Possibly when the time came for thinking of sending him to Oxford there was no prospect of a vacancy in the snug family living and it was decided in family council that the Church was not his vocation.

### Early Life and Education.

At the age of eight Edward Jenner was sent as a boarder to a school at Wotton-under-Edge and a little later transferred to Cirencester, where remarkably early he developed a taste for natural history, for, although a schoolboy might make a collection of nests of the dormouse, we should hardly have expected him to have been interested in oolitic fossils, as we read that he was. He left school at the age of fourteen, having finished his "scholastic education," and, it being decided that he was to enter the medical profession, he was considered old enough to become apprenticed, as the custom then was, to a surgeon, a Mr. Ludlow of Sodbury (Chipping Sodbury) near Bristol. It was while he was so apprenticed—his apprenticeship lasted for seven years—that he laid the foundations of that great discovery which has immortalized his name. To an apprenticeship there usually succeeded a term of hospital study and accordingly in 1770 he went to London and "walked" St. George's Hospital for two years, meanwhile residing as a house pupil with John Hunter who was then in his prime, Surgeon to the Hospital, lecturer at his own private school of anatomy and the owner of an extensive menagérie at Brompton. Jenner's attachment to Hunter was very great and the master's opinion of his pupil may be gathered from the many letters which Jenner preserved and in one of which Hunter writes: "I do not know anyone I would sooner write to than you; I do not know anybody I am so much obliged to." This intimate association with Hunter must have tended greatly to mould his character and undoubtedly it was the most fortunate element in his educational career.

Whilst studying at London Jenner was engaged in arranging the natural history collection of Sir Joseph Banks and he showed such skill and knowledge that he was offered the position of naturalist to Captain Cook's second expedition which sailed in 1772. However, he declined the offer and returned to Berkeley to practise in 1773. A question arises as to what may have been his "qualification." Possibly he held no diploma, for in those days there was no registration, no Royal College of Surgeons nor Licence of the College of Physicians and apparently to enter upon general practicse was legitimate after apprenticeship with or without hospital study. His correspondence with Hunter continued till the death of this famous surgeon who once endeavoured to entice him to London by an invitation to assist him in teaching natural history, but Jenner resisted the flattering temptation.

### Jenner as a Country Practitioner.

We have an interesting picture of him when starting out on his professional career at the age of twenty-four, drawn by a friend who first made his acquaintance at this time.

"His height was rather under the middle size, his person was robust, but active and well-formed. In his dress he was particularly neat and everything about him showed the man intent and serious . . . He was dressed in a blue coat and yellow buttons, buckskins, well-polished jockey boots with handsome silver spurs and he carried a smart whip with a silver handle. His hair . . . was done up in a club and he wore a broad-brimmed hat. . . . I . . . was not less surprised than gratified to find that the ancient affinity between Apollo and Æsculapius was so well maintained in his person." This last allusion to Jenner's artistic tastes is interesting. We gather from various sources that he was not only fond of singing, but also able to perform on the violin and flute. Hunter's letters contain allusions to paintings which he had pur-

chased for him as a bargain, and several specimens of his poetic talent are extant. Perhaps the most striking thing we notice is the absence of any allusion in his letters to current politics or social topics. He lived in stirring times—the latter end of the reign of George II. and the whole of that of George III. As a boy he would have been told of the retreat and execution of Admiral Byng, of Clive's victory at Plassey and of Wolfe's heroic scaling of the heights at Abraham. In later years he might even have heard Burke's brilliant impeachment of Warren Hastings in Westminster Hall, the episodes of the French Revolution and the Napoleonic Wars, the secession of the American Colonies and the War of Independence; surely these were everywhere discussed. But Jenner appears to have cared for none of these things: his verses breathe a love of rural life and surroundings (indeed they read like a translation of one of Virgil's "Georgics"), whilst his letters that have been preserved, seldom deal with other matters than that of his great discovery.

Chiefly at Hunter's suggestion he carried out many investigations in natural history, one of which on the cuckoo seems to have earned him the Fellowship of the Royal Society in 1788. He anticipated Darwin in some observations on the earthworm and he was an ardent geologist at a time when geology could hardly be reckoned among the sciences. His most famous paper, that on the migration of birds, was not published till after his death.

In 1788 he married a lady of good family named Kingscote and about the same time his nephew, Henry, became his apprentice. His home was known as "The Chantry Cottage" and was next door to the vicarage where he was born.

Meanwhile, Jenner was not neglectful of medical study. He belonged to two small local medical associations, one of which he was instrumental in forming, which met in neighbouring towns and contrived to blend a pleasant conviviality with academic discussion. Here he often advanced his views on cow-pox inoculation, views which his *confrères* looked upon as a hobby. He amended pharmaceutical methods and above all he explained the secret of *angina pectoris*. It was to this mysterious disease that his "loved friend" John Hunter—"the dear man"—succumbed in 1793. All these things which of themselves would have made him accounted a distinguished man in his day, are overshadowed by the discovery at which he worked quietly for so many years and which he brought to a successful issue on May 14, 1796.

### Small-pox in the Eighteenth Century.

In these days there is a distinct danger of forgetting what small-pox meant some two centuries ago. In the first place its mortality was appalling. One of every fourteen persons born alive died of small-pox; of those who contracted it, whilst 16% to 20% always died, in some epidemics the mortality was 50%. This mortality was chiefly amongst the young. Of one hundred who died, eighty were under five years of age, eighty-eight under ten years of age. In one year in Russia two million persons died. "Few," writes a cynic, "escape love and small-pox."

The illness itself was disgusting. Sir Matthew Hale writing to his grandson, says: "Your sickness rendered you noisome to yourself—a spectacle full of deformity; you were in the very next degree to absolute rottenness, putrefaction and death itself." "Rottenness" is a term Horace Walpole uses in one of his letters.

As to its general effects I know of no better lay description than that given in the "History of Henry Esmond" by Thackeray, whilst in Lord Macauley's account of the death of Queen Mary we have an unrivalled word picture which I will venture to quote.

> That disease, over which science has since achieved a succession of glorious and beneficent victories, was then the most terrible of all the ministers of death. The havoc of the plague had been far more rapid; but the plague had visited our shores only once or twice within living memory and the small-pox was always present, filling the churchyards with corpses, tormenting with constant fears all whom it had not yet stricken, leaving on those whose lives it spared the hideous traces of its power, turning the babe into a changeling at which the mother shuddered, and making the eyes and cheeks of the betrothed maiden objects of horror to the lover.—*Macauley's History*, Volume VII., Chapter xx.

### The Introduction of Inoculation.

In a letter from the Levant, dated April 1, 1717, the Lady Mary Wortley Montagu, wife of the Ambassador to the Sublime Porte, wrote to Mrs. S. R. ———, *à propos* of "distempers," that she intended to have her son Edward inoculated or "ingrafted" with small-pox, so impressed was she with the freedom from danger of the process and with its advantages as compared with the disadvantages and dangers attached to the disease when prevalent in an epidemic form. She writes that the small-pox in Turkey was entirely harmless, that it was customary to make up parties (of young people and children presumably) for the purpose of inoculation and that the operation was performed by a caste of old women. The operator had a nutshell full of "matter" from the best small-pox (possibly from a mild case); with a stout needle she made an opening and inserted the matter into half a dozen "veins"; on the eighth day the rash appeared and on the sixteenth day the patient was well; it was considered a satisfactory result, because seldom more than twenty to thirty marks appeared on the face. She adds that no example of death from it ever occurred in Turkey. It was the influence and the example of Lady Mary Montagu which led to the introduction of inoculation into England in 1722. But was not so harmless as was thought: in the first eight years eight hundred and forty-five persons were inoculated and seventeen died (2%), a negligible mortality compared with that of epidemic small-pox. But the process was thought to be uncanny; it was a flying in the face of Providence; the clergy thundered against it from their pulpits, though some few defended it. The medical faculty were on the whole favourable to it, though the objection was raised that it undoubtedly led to dissemination of variola. Certainly the public were not educated up to it, for an advertisement of this date reads: "Footman wanted; must be Church of England and have had small-pox in the natural

way." Inoculation nearly died out in England in about twenty years, but under the influence of royal example it revived and finally received the sanction of the Royal College of Physicians. Whether by a process of selection an attenuated virus was secured or whether the inoculation of the virus led to a milder form of the disease than that acquired by contagion may be considered doubtful, but it is interesting, because it was this idea of attenuation both by inoculation and vaccination that influenced Pasteur in his work on infectious diseases and he expressed his indebtedness to Jenner for the suggestion of obtaining attenuation by passing the virus of dangerous diseases through a series of animals until a harmless form could be obtained. Inoculation in the latter half of the eighteenth century was looked upon as a serious affair and the preparation for it in his own case is graphically described by Jenner in terms which recall the reply of Molière's[2] Bachelierus to his learned examiners:

*Clysterium donare*
*Postea seignare*
*Ensuita purgare*
*Rescignare, repurgare et reclysterisare.*

Whilst there is no doubt that inoculation usually prevented a person acquiring small-pox from effluvia, still after a time the degree of protection was lessened, so that cases of small-pox from contagion did actually occur subsequently in those who had previously been successfully inoculated.

### Cow-pox and Vaccination.

Whilst he was still an apprentice Jenner's attention was arrested by a casual statement made by a young country girl to this effect that she knew that she would not catch the small-pox because she had already had cow-pox. It was obviously a popular notion in the Vale of Berkeley and the truth of this belief Jenner immediately set about investigating, for he dimly foresaw the mighty consequences which a corroboration of this statement might bring about.

What was this cow-pox? It was a vesicular eruption seen on the udders of cows and if a milkmaid happened to have sores or cracks on her fingers, she was liable to become inoculated and for similar vesicles to form which afterwards broke and became sores, these sores healing after about a fortnight. The disease seems to have been limited to certain districts of England and chiefly to the western counties and here every now and then it broke out in an epidemic form. Veterinary science was not much studied in those days and the cow-pox, unknown or unrecognized in many parts of England, was generally confounded with the cattle plague. Till after his return from London Jenner contented himself with stimulating—I had almost said worrying—his fellow practitioners into investigating the truth of this legend. He mentioned it also to Hunter who publicly alluded to it in his lectures and encouraged his pupil to give up merely thinking about it, but to ascertain if it were true, at the same time warning him to be patient and above all accurate in his observations. On his return to the country in 1772 Jenner set to work and collected several cases of persons who, having had cow-pox by accidental inoculation, were found to be insusceptible of inoculation with small-pox virus. He next studied this disease of the cow and he came to the conclusion, then generally thought to be erroneous, that the cow-pox arose from a disease of the horse known as the "grease" and he further concluded that this disease had to be transmitted to human beings through the cow, otherwise it had not the protective virtue, for men who contracted sores on the fingers from attending to horses with greasy heels were easily inoculated with small-pox; these sores were therefore probably ordinary septic processes. Jenner ascertained further that milkers might have cow-pox more than once. The chief objection raised by those to whom Jenner first announced his opinion, was that occasionally instances of small-pox occurred after accidental inoculation with cow-pox, so that the rule could not be absolute. Moreover, those who had had small-pox, were not exempt from taking cow-pox.

Thus foiled, Jenner set to work again and he soon demonstrated that all the sores met with on the udder of the cow were not true cow-pox; and further, that it was only in a certain stage of the development of the vesicle that the true virus of cow-pox could be communicated, so as to be protective against small-pox. Milkers were liable to contract other sores on their fingers which were not true cow-pox. Jenner further satisfied himself that swine-pox was identical with cow-pox and he inoculated his own son (aged eighteen months) with it.

In 1796 the climax of his experiments was reached. A girl named Sarah Nelmes contracted cow-pox on her hand and on the fourteenth day Jenner inserted some of the matter taken from the vesicle into two superficial incisions on the arms of a boy named James Phipps. The lad developed a typical cow-pox. Six weeks later matter from a small-pox pustule was inserted into the boy's arms, but he was found to be proof against inoculation. In 1889 Professor Crookshank[3] took great pains to show that Jenner's discovery was anticipated in the year 1774 by a Derbyshire farmer named Benjamin Jesty, who deliberately inoculated with the cow-pox his wife and two sons with a view to preventing the small-pox, having noticed that two dairymaids in his employ, who had accidentally contracted cow-pox, had escaped infection when waiting upon sufferers during an epidemic of small-pox. As a historical fact this deserves to be known, but it in no way detracts from the merit of Jenner's work.

Jenner's pamphlet, "An Inquiry into the Causes and Effects of the Variola Vaccinæ, a Disease Discovered in Some of the Western Counties of England, particularly Gloucestershire and Known by the Name of the Cow-pox," was not published till two years later (1798), but within three years the practice of vaccination had spread to the continents of Europe, Asia and America; many of the laity contributed actively to the diffusion of a knowledge of the advantages of the discovery. To no one perhaps was he more indebted than to the Countess of his patron, that Earl of Berkeley, the succession to whose title (1811) has formed one of the romances of the peerage in quite recent days.

A few years before these events occurred, 1792, Jenner had become a physician (M.D., St. Andrew's) and he resigned the more arduous work of his practice to his nephew. His work now required his presence a good deal in London and from time to time he lived there, but after the death of his wife in 1815, he finally retired from active work and remained at Berkeley for the rest of his days. He died of apoplexy on January 26, 1823, and was buried in Berkeley Church. To the end he continued his natural history researches, his spare time being occupied also with magisterial and mayoral duties.

Had Jenner lived in the twentieth century, his services to humanity would perhaps have earned him the same rewards and titles as those usually accorded to a Court accoucheur, or even those so justly bestowed upon his distinguished namesake in our own day. The appreciation of foreign countries was soon declared: medals were struck in his honour. In Bavaria his statue was enshrined in a temple; diplomata were showered upon him; and although by his own country his merits were more tardily recognized, it can scarcely be said that his discovery was not appreciated, seeing that Parliament granted him £30,000 in all and that the ancient Universities vied for the honour of conferring a degree upon him, whilst Coleridge even meditated a poem. But no title could add to the lustre of his fame nor could money grants adequately represent the value of the lives he saved. The only great danger to his reputation lies in the fact that this present age cannot easily grasp what small-pox meant in the eighteenth century and hence credulous persons are easily led astray by the specious arguments of the anti-vaccinists. We might expect better things from our legislators, but in South Australia just as in Great Britain they sadly need instruction in the matter. Witness, for instance the speeches delivered in the South Australian Parliament in 1918, when the compulsory clauses of the *Vaccination Act* were abolished. It is difficult to imagine that men of ordinary intelligence could really believe such ridiculous ideas about vaccination as they appeared to believe, bolstered up as they were by reference to rabid anti-vaccination literature.

### The Progress and Results of Vaccination.

I must not convey to you the idea that the adoption of vaccination was all smooth sailing, but time will not allow me to enter into full details as to the opposition it met with in some quarters or the misrepresentations that were circulated as to its remote effects. Undoubtedly in England its progress was hindered also by imperfect attention to the proper method of its performance. Jenner lived to a ripe old age, but one regrets to think how his sensitive nature was constantly exposed to rude assaults at the hands of invidious contemporaries. However, he never wavered in his belief in the genuineness and greatness of his discovery.

At first he hoped that one efficient vaccination might be prophylactic for all time, but reports of variola being contracted after successful vaccination were announced from time to time and in 1811 Jenner himself met with a serious setback when the Honourable R. Grosvenor, one of a family whom he himself had vaccinated ten years previously, contracted a serious attack of variola. It became clear that vaccination did not protect for all time, but neither did the small-pox itself prevent a person from having a second attack. Jenner therefore modified his opinion by pronouncing that vaccination gave just as much protection from small-pox as did a previous attack of that disease—neither more nor less—and the experience of one hundred years fully bears out this statement. Since then nothing has been added to this great discovery and nothing, I think, has been found to detract from it. Moreover, an eminent veterinary authority[4] has shown that amongst the various different diseases commonly known as the grease, there is an affection of a contagious nature, the true horse-pox, which communicates to man and to the cow the true vaccine vesicle and protects against the small-pox.

Professor Crookshank's ponderous volumes were written with a view to showing that we are all quite wrong in our estimate of Jenner and that vaccination itself is a delusion and a snare, but the only effect of a perusal of his book is to confirm us in our preconceived notions as to the greatness of Jenner's work. And it can, I think, be safely said that not only is there no evidence or argument adduced that can dispose of the statistical proofs of the efficiency of vaccination, but that by republishing in full Jenner's various papers, this champion of the anti-vaccinationists (a sect mainly recruited from the ranks of those faddists who despise logic and distort statistics) has done a real service to vaccination: like Balaam he has uttered a blessing, instead of the looked-for curse.

These occasional cases of small-pox after vaccination led to the suggestion of re-vaccination being performed as a further precaution and such re-vaccination became commonly adopted about the year 1825.

In the year 1840 two great advances were made in England: inoculation with small-pox was prohibited by law and vaccination was arranged to be performed gratuitously by public vaccinators. In 1853 vaccination became obligatory, but it was not systematically enforced till about fifty years ago (1873). One result is that whereas in my younger days it was quite common to see persons pitted with small-pox marks, now how many of you have seen such things? The chief industry in my native town was paper making: the rags were brought to the mills from London by road. Whenever small-pox made its appearance in Maidstone it was at a paper mill and the hands who first contracted it were always the rag sorters. We in the town took no notice of it beyond that, if considered necessary, we were re-vaccinated. Another curious result is that small-pox is often so mild when contracted after vaccination, as not to be easily recognizable. In the recent epidemic at Gloucester the usual difficulty as to diagnosis occurred. The local Medical Officer of Health failed to make a correct diagnosis. As a result two hundred and forty-seven persons con-

tracted the disease, though fortunately it was of a very mild type. It is the irony of fate that Gloucester city should again be visited by an epidemic, for it was slow to be convinced of the efficacy of vaccination in Jenner's day and of late has been the headquarters of the anti-vaccinationists. Our early transactions contain an account of a small epidemic at Bordertown in 1884; the residents there were sceptical until they inspected the convalescent with his confluent scars from a safe distance.

I will now inflict upon your patience just a few statistics.

| Years. | Deaths from all Causes. | Deaths from Small-pox. | Ratio of Deaths from Small-pox to Deaths from all Causes. |
|---|---|---|---|
| 1771-80 .. .. | 50,000 | 5,000 | 1 in 10 |
| 1872-82 .. .. | 22,000 | 262 | 1 in 84 |
| 1883-92 .. .. | 19,800 | 73 | 1 in 271 |
| 1889 .. .. | 19,800 | None | —— |

You might ask was not all this due to general improvement in sanitation? Sanitation has lessened all zymotics, but the Registrar-General's statement was that whilst the general death rate had decreased during two consecutive decades (1872-1892) 9%, that of variola has decreased 72%; that the decline had been entirely in those under fifteen years of age, the death rate having increased above that age. No other zymotic had shown a similar change of age incidence. In fevers amenable to hygiene the decline had been common in all ages, in scarlet fever and measles it had not diminished.

In pre-vaccination days variola was a disease of childhood essentially. Even in 1839, 88% of deaths were in children under ten years of age, therefore it is dangerous to suggest that vaccination may be conveniently postponed till the child is grown up. The suggestion that dental caries would be prevented by delayed vaccination has nothing beyond imagination to support it.

Take next the statistics of the Franco-Prussian War (1870-1871) derived from French sources.

Prussian Army.—Vaccinated and re-vaccinated thoroughly—over 1,000,000 men—loss from small-pox .. .. 459

French Army.—Not well vaccinated—under 1,000,000 men—loss from small-pox .. .. .. .. .. .. 23,400

Coming nearer home, in New South Wales in 1880 there was no compulsory vaccination. Of one hundred infants registered only eighteen were vaccinated that year, but in the following year there were two hundred and eleven vaccinations for every one hundred births. Why? Because Sydney was visited by small-pox. The number of cases only reached one hundred and fifty-four, but the number of deaths was forty.

An instructive, though small, epidemic occurred at Halifax (England) in 1892-1893. Halifax was a badly vaccinated town, only about 10% of the children being done when in 1892 an epidemic occurred. The following figures show the comparative death rates amongst the vaccinated and unvaccinated treated at the fever hospital.

In fever hospital, 513 patients with 44 deaths. There were 425 vaccinated patients with 8 deaths = 1.8%. There were 88 unvaccinated patients with 36 deaths = 40 %.

It is claimed then that vaccination affords a diminished death rate from small-pox and further that it gives a diminished liability to contract the disease. From recent epidemics we find that the children under ten years who are vaccinated, have a twenty-fold immunity from catching it and four hundred and eighty-fold immunity from death as compared with the unvaccinated and that in persons over ten years the vaccinated enjoy a thirty-one-fold immunity from infection and six hundred and forty-fold immunity from death.

This immunity from attack is more clearly seen in those re-vaccinated. In 1885 it was shown that out of one thousand five hundred doctors, nurses, employees at small-pox hospitals in London, only forty-three contracted the disease and that not one out of the forty-three had been re-vaccinated. Other advantages are that vaccination can overtake small-pox and forestall its appearance; that if too late to do so, it still renders the attack milder and necessitates a shorter period of stay in hospital; that it mitigates the pitting and subsequent disfigurement and lessens the risk of blindness; 90% of the blind in Indian bazaars owe their affliction to small-pox.

As indicated already the protection afforded by vaccination depends upon the efficiency with which it is performed. Here are some statistics going back seventy years, but they have never been disputed.

### Statistics of Efficiency of Vaccination.

Out of about ten thousand, six hundred cases in small-pox hospitals (1852-67).

| | Deaths. |
|---|---|
| Among the unvaccinated .. .. .. | 35% |
| Among those said to have been vaccinated, but showing no marks .. .. | 40% |
| Among the vaccinated with one mark .. | 14% |
| Among the vaccinated with two marks.. | 7% |
| Among the vaccinated with three marks | 3% |
| Among the vaccinated with four marks | 1% |
| Total unvaccinated and doubtful .. | 75% |
| Total vaccinated .. .. .. .. | 25% |

### The Objections to Vaccination.

I need not deal with the sentimental objections usually raised: "the liberty of the subject," "it is a shame to hurt the child" *et cetera*. It is, however, seriously alleged that a certain number of deaths have occurred through vaccination and that short of death, serious illness has been at times induced and that certain diseases are liable to be transmitted during the process, whether humanized or calf-lymph be used. Now as regards the deaths attributed to vaccination, during nine years in England they amounted to about one for every fourteen thou-

sand vaccinations. The death rate from chloroform is about one for every two thousand administrations.

The principal causes of death are those which attend wounds of any kind—inflammation, erysipelas, blood poisoning. Such cases have undoubtedly occurred and will occur again, unless the lymph used be pure and proper precautions be taken during the performance of the operation. If calf lymph, properly prepared and properly stored, were alone used with ordinary aseptic care, such accidents would be reduced to a minimum, for it has been demonstrated that all the germs which cause such inflammation, can be destroyed by preserving the lymph with glycerine; the vaccine germ is affected last of all. It is well known that fresh glycerinated calf lymph gives a more inflamed arm than that which has been kept some time. Of the diseases which have been supposed to be transmitted by means of human lymph, we need only deal with two, tuberculosis and syphilis. Now, whilst the latter may possibly be inflicted upon a baby by vaccination from an affected infant, it is a disease of which the calf is insusceptible and therefore vaccination with calf lymph gets over this difficulty. Again, although tuberculosis is very common amongst cows, it is very rare in calves. In London the precaution is always taken to kill the calf and see if it be healthy before the lymph taken from it is distributed for use and the lymph itself is submitted to bacteriological examination.

As regards the various skin diseases which are alleged to have been caused by vaccination, I would remark that such ailments were described before the days of Jenner and that there is no evidence that they are more common now than then.

### Homage to Jenner.

Jenner may not have been as profound a philosopher as Harvey in the seventeenth century or such an intellectual giant as Pasteur in the nineteenth century, but, as Dogberry hath it "comparisons are odorous"! Nevertheless, he stands out as the greatest figure in medicine in the eighteenth century and in reality he is the father of all preventive medicine. His work was essentially the work of observations in the laboratory of Nature and work such as any general practitioner might carry out. Estimating its value by the saving of life alone, its only competitor is the elaboration by Lister of the theory and of practice of the aseptic treatment of wounds.

It is well, then, that we should render all homage to his memory for truly, like Aaron of old, "he stood between the dead and the living and the plague was stayed."

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(2) Moliére: *"Le Malade Imaginaire."*

(3) "History and Pathology of Vaccination: A Critical Inquiry," by E. W. Crookshank, M.B., Professor of Comparative Pathology and Bacteriology in King's College (in two volumes), London, 1889.

(4) "Professor George Fleming, C.B.," *The Veterinary Journal*, August, 1890.

## THE STAINING REACTIONS OF HYDATID CYSTS.

By Gordon Cameron, M.B., B.S. (Melbourne),
*Stewart Lecturer in Pathology (from the Pathology Department, University of Melbourne).*

Although a considerable amount of work has been done on the pathology of echinococcus disease from many aspects, the micro-chemical side has been strangely neglected. Chemical analyses of cyst walls and contents have demonstrated that the subject is one of great complexity, despite the relatively simple composition of hydatid fluid.

Working in Sir Harry Allen's laboratory, I have endeavoured to carry out a systematic examination of the staining reactions of cysts and their contents, making use of several of the lesser known methods along with those commonly in use.

### General Results.

In general, the endocyst and scolices gave similar reactions, with a greater tendency on the part of the scolices to take the basic aniline dyes, especially hæmatoxylin, gentian violet and the carbol gentian violet of Gram's stain.

The ectocyst reacted more strongly to acid dyes, especially to eosin, all methods including the latter dye usually showing diffuse or irregular pink staining.

The reactions to Van Gieson's method and to gentian violet differentiated with dilute acetic acid show that the cyst wall and scolices belong to that indefinite group known as "hyaline." Such substances usually stain a deep pink, "mucin" on the one hand and "colloid" on the other giving light pink and yellow colours respectively. It is interesting to note that scolices "took" both the acid fuchsin and picric acid, yielding pink and yellow varieties, sometimes with both colours intermixed in the same scolex. With Sudan III. an extensive red granular coloration occurred throughout the whole of the cyst wall and the scolices, apparently distributed without any special order.

When Langhans's method of staining was used, glycogen was found to be distributed in much the same manner as fat, although the reaction was much more pronounced in the endocyst. According to Wells,(1) Brault and Loeper found glycogen limited to the germinating membrane.

A reaction for iron was very marked in the endocyst and scolices particularly. In the ectocyst, instead of the characteristic "Prussian blue" colour, a pale green colour was the rule. As was to be expected, von Kossa's method for calcium salts showed a very extensive reaction in ectocyst, endocyst and scolices. With Giemsa's stain, the ectocyst gave a light purple colour, the endocyst and scolices staining a deep blue. Apparently the staining of the ectocyst was due to its affinity for eosin. This eosinophile feature of the ectocyst is particularly interesting when we remember the eosinophilia so commonly associated with echinococcus disease. Wells(2) points out that "if Habershon's contention(3) is correct that eosinophile granules are related to glycogen, we may have here an explanation of the

occurrence of eosinophilia in infection with animal parasites," for the walls of hydatid cysts contain much glycogen.

It is possible that the chemical substance in the ectocyst which reacts with eosin, is identical with that contained in the leucocytes and that the leucocytic eosinophile reaction is the result of the substance contained in the ectocyst or at least has some purposive connexion with the latter. Thus Kämmerer[4] has put forward the view that in infection by worms neutrophile cells in the inflammatory zone take up the toxic substances and convert them into eosinophile substance.

Such an explanation would be simpler than the one given by Wells which is based on the as yet unconfirmed work of Habershon.

Dr. Harold Moore has drawn my attention to a case recorded by K. D. Fairley[6] in which a blood count during operation for hydatid cyst showed an eosinophilia of 11,300 cells per cubic millimetre, while thirty hours later there were 5,850 eosinophile cells per cubic millimetre. This rapid reaction after removal of the eosinophilic ectocyst is extremely interesting.

Fairley's figures also demonstrate the rarity with which an eosinophilia is present when the cyst is suppurating. In such cases the ectocyst suffers greatly.

It is interesting to note that the hydatid cyst wall contains proteins, fats and carbo-hydrates as well as definite quantities of inorganic salts, especially iron and calcium.

Associated with the fatty change in the cyst wall was an extensive fat reaction in the liver tissue within which the cyst was situated. Whether this is a common occurrence or not would be interesting to determine.

The reaction to both acid and basic dyes suggests an extremely complex physical as well as chemical structure. Nucleo-proteins presenting all possible variations in the quantities of nucleic acid and protein in union account for the different aniline dye reactions, whilst the presence of fat and glycogen together with those substances almost certainly numerous which give rise to the "hyaline" reaction, and the inorganic salts go to make up an important physical structure in which surface phenomena play an enormous part.

It is generally taught that the endocyst consists of a granular membrane showing outlines of cells, but no nuclei. None of the methods of staining used in this investigation indicated a nuclear body of the usual type, but of course that does not necessarily exclude the presence of nuclear substance scattered throughout the cell protoplasm. Indeed, the patchy distribution of hæmatoxylin in the endocyst is rather suggestive than otherwise of a more specialized substance, as is also the marked staining with Giemsa's stain which is a specific chromatin stain.

The accompanying table indicates the chief differences in staining.

### Details.

All of the specimens examined were obtained from the liver and were recent. They were "fixed" in a 2% formalin solution for several days.

In all cases frozen sections were used.

*Hæmatoxylin and Eosin.*

The following procedure is adopted in staining with hæmatoxylin and eosin:

(1) Stain with Ehrlich's acid hæmatoxylin for ten minutes;
(2) Wash in water;
(3) Counterstain with alcoholic solution of eosin for fifteen seconds;
(4) Wash three times with methylated spirit and once with absolute alcohol;
(5) Mount in Farrant's solution.

The ectocyst stains a bright pink. In the endocyst extensive patchy staining with hæmatoxylin occurs.

Scolices stain deeply with hæmatoxylin with occasional patchy staining with eosin. Hooklets are unstained.

| Stain. | Ectocyst. | Endocyst. | Scolices. |
|---|---|---|---|
| Hæmatoxylin and eosin .. | Diffuse pink (eosinophile) staining | Patchy pink (eosinophile) staining, but with marked blue (hæmatoxylin) areas | Patchy pink and blue staining, blue predominating |
| Sudan III. .. .. .. .. | Extensive red granular staining | Extensive red granular staining | Diffuse deep red staining |
| Van Gieson and hæmatoxylin | Deep pink staining | Deep pink, but with patchy blue staining | Yellow or red or both combined |
| Gentian violet .. .. .. .. | Violet | Light violet | Diffuse deep violet or blue |
| Gram's stain .. .. .. . | Diffuse pink staining (eosinophile) | Violet and pink patches | Violet |
| Langhans's stain .. .. .. | Extensive brown granules | Extensive brown granules | Extensive brown granules |
| Potassium ferro-cyanide .. | Pale green staining | Blue patchy staining | Deep blue staining |
| Von Kossa's method .. .. | Minute black granules | Minute black granules | Minute black granules |
| Giemsa's stain.. .. .. .. | Light purple | Blue | Deep blue |

*Sudan III. and Hæmatoxylin.*

The following procedure is adopted in staining with Sudan III. and hæmatoxylin:

(1) Stain with an alcoholic solution of Sudan III. for fifteen minutes;
(2) Wash in water;
(3) Stain with Ehrlich's acid hæmatoxylin for ten minutes;
(4) Wash with methylated spirits and absolute alcohol;
(5) Mount in Farrant's solution.

Both ectocyst and endocyst stain extensively with Sudan III. in the form of minute red globules scattered irregularly throughout. Scolices stain a deep red, hooklets are unstained.

The liver stained extensively, the globules being larger and mostly within the cells.

*Van Gieson and Hæmatoxylin.*

The following procedure is adopted in the Van Gieson and hæmatoxylin method:

(1) Stain with hæmatoxylin for ten minutes;
(2) Wash in methylated spirit and absolute alcohol;
(3) Stain with Van Gieson's stain for one to three minutes;
(4) Wash in water;
(5) Mount in Farrant's solution.

The ectocyst stains a deep pink colour, with occasional yellow patches. The endocyst stains pink, with some yellow patches. Scolices stain dark red or maroon, some a bright yellow. In others there occurs a patchy staining with red and yellow, sometimes yellow with a red margin only.

*Gentian Violet.*

The following procedure is adopted in staining with gentian violet:

(1) Stain with a 0.25% solution of gentian violet for twenty-four hours;
(2) Differentiate in 0.25% acetic acid;
(3) Wash thoroughly in watetr;
(4) Mount in Farrant's solution.

Both ectocyst and endocyst stain a violet colour. Scolices stain a deep violet or blue, the hooklets remaining unstained.

*Gram's Stain.*

The following procedure is adopted in staining by the Gram method:

(1) Stain with carbol gentian violet for five minutes;
(2) Wash in water;
(3) Place in Gram's iodine solution for one minute; wash;
(4) Decolorize in methylated spirit until the colour ceases to soak out; rinse in water;
(5) Counterstain with eosin for ten minutes;
(6) Rinse; dry; mount in Canada balsam.

The ectocyst stains a diffuse pink with eosin. In the endocyst some violet staining is seen. Scolices stain more or less deeply with gentian violet, the periphery sometimes more deeply than the remainder. Hooklets are unstained.

*Langhans's Stain.*

The following procedure is adopted in Langhans's method of staining:

(1) Stain with Lugol's solution for five to ten minutes;
(2) Dehydrate in one part of tincture of iodine to three parts of absolute alcohol;
(3) Clear and mount in origan oil.

The ectocyst stains a patchy brown colour. The endocyst stains a more or less diffuse brown, much more marked than that in the case of the ectocyst. Scolices stain a definite brown colour.

*Potassium Ferro-cyanide Reaction for Iron.*

The following procedure is adopted in staining with potassium ferro-cyanide:

(1) Stain in a 2% aqueous solution of potassium ferro-cyanide for ten minutes;
(2) Transfer to 0.5% solution of hydrochloric acid, or to acid alcohol;
(3) Examine section in water or glycerine.

The ectocyst stains a pale green colour. The endocyst stains a deep blue colour in patches. Scolices stain deep blue as a rule; sometimes they are green with blue patches. Hooklets are unstained.

*Von Kossa's Method for Calcium Phosphate.*

The following is von Kossa's method of staining:

(1) Stain in a 1.5% aqueous solution of silver nitrate for thirty to sixty minutes;
(2) Wash thoroughly in distilled water;
(3) Mount in glycerine.

Both ectocyst and endocyst are seen to be crowded with minute black deposits. Scolices manifest similar appearances.

*Giemsa's Method.*

The following procedure is adopted in Giemsa's method of staining:

(1) Fix with methyl alcohol for half an hour;
(2) Add a freshly made mixture of one drop of Giemsa's stain in one cubic centimetre of water and let it stand for fifteen to thirty minutes;
(3) Wash under a strong jet of water;
(4) Dry in the air;
(5) Mount in Canada balsam or Farrant's solution.

The ectocyst stains a light purple (bluish-red). The endocyst stains a deep or light blue. Scolices stain a deep blue, the hooklets remain unstained.

**Acknowledgements.**

I have to express my gratitude to Sir Harry Allen, in whose department all of this work was carried out, especially for his kindly criticism and encouragement.

Mr. W. Dickinson, of the department, helped me greatly in the technical work.

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(1) H. G. Wells: "Chemical Pathology," page 132.
(2) H. G. Wells: *Ibidem*, page 436.
(3) S. H. Habershon: *The Journal of Pathology and Bacteriology*, Volume XI., 1906, page 95.
(4) W. Kämmerer: *Münchener Medizinische Wochenschrift*, 1907, *Seite* 29 (Quoted by O. Gruner in "The Biology of the Blood Cells."
(5) G. Giemsa: *Annales de l'Institut Pasteur, Tome* XIX., 1905, *page* 346.
(6) K. Douglas Fairley: THE MEDICAL JOURNAL OF AUSTRALIA, July 14, 1923, page 27.

# Reports of Cases.

## SEVERE DIABETES TREATED WITH "INSULIN."[1]

BY D. M. McWHAE, C.M.G., C.B.E., M.D., B.S. (Melbourne),
*Honorary Physician, Perth Public Hospital, Western Australia.*

E.S., a female patient, aged seventeen years, was admitted to Perth Hospital on August 22, 1923, suffering from diabetes. She had been in hospital in 1922 and had been discharged with an absence of sugar in the urine and with a low carbo-hydrate tolerance. The diet was really too low for the maintenance of satisfactory existence. She was therefore regarded as suffering from a severe form of diabetes with a low carbo-hydrate tolerance. For five days (August 22 to 26, 1923) she was given no nourishment but beef tea, tea and coffee without milk or sugar. During this starvation period the sugar did not disappear from the urine.

On August 27, 1923, she was given six grammes of carbohydrate and twenty-one grammes of protein. On the following day this was increased to nine grammes of carbohydrate and forty grammes of protein. During the whole of the period of seven days of practical starvation sugar and diacetic acid persisted in the urine. Despite inability to carry out blood sugar tests the condition was considered severe enough for the institution of "Insulin" treatment. On August 29, 1923, she was given a diet containing forty-five grammes of carbo-hydrate, sixty-grammes of protein and sixty-one grammes of fat. This was equivalent to giving 969 calories or five calories per kilogram of body weight. On the third day of the administration of this new diet (August 31, 1923) she was given six units of "Insulin" and on September 1, 1923, fifteen units. The "Insulin" was divided into two doses given half an hour before each of the two larger meals. On September 1 the urine became sugar free and the daily dose of "Insulin" was reduced to twelve units. On September 6 the amount was reduced to six units and on September 8 to three units. The diet by this time had been increased by the addition of a little fat so that it produced eleven or twelve hundred calories. For the first time since the inception of the "Insulin" treatment a trace of sugar appeared in the urine on September 9, 1923. On the following day she was given three units of "Insulin" at 8.30 a.m. and breakfast at 9 a.m. At 9.45 a.m. while reading the paper she suddenly became unable to see. I saw her five minutes later. She was practically pulseless with considerable pallor and air hunger. Fortunately she was conscious enough to be able to suck some barley sugar. Her condition was very alarming, but in about thirty minutes she had become normal again.

I report this severe hypoglæmic reaction to show that "Insulin" must be given with the greatest possible caution when the urine becomes sugar free and blood sugar estimation cannot be carried out. I may say that the patient is now on a diet containing forty-five grammes of carbo-hydrate, sixty of protein and seventy-one of fat. She is receiving six units of "Insulin" daily. This is being given in two doses of three units. The urine is still sugar free.

[1] Read at a meeting of the Western Australian Branch of the British Medical Association on September 19, 1923.

## VOLVULUS OF THE STOMACH.

BY W. A. HAILES, D.S.O., F.R.C.S. (England),
*Surgeon to Out-patients, Melbourne Hospital.*

As all authorities agree and statistical evidence indicates that volvulus of the stomach is of very rare occurrence, no apology is needed for reporting the following case at some length together with the investigations which were subsequently carried out. There are less than thirty recorded cases (Choyce).

### Clinical History.

A male patient, aged thirty-eight years, a market gardener, was sent to the Melbourne Hospital on June 26, 1923, with the diagnosis of acute intestinal obstruction. He stated that three days prior to admission he had begun to suffer from severe pain in the lower part of the abdomen. There was nothing characteristic about the pain. He vomited soon after its onset. The bowels had not moved since the onset of the pain and he had passed no flatus. The vomiting had been incessant. The vomited material was dark in colour and was described as "fæcal." On the day of admission to hospital the vomiting gave place to dry retching and only a small quantity of fluid was ejected. The patient had had nothing to eat for the previous two days and was generally in a very weak state. Inquiry into his previous history revealed the fact that action of his bowels had always been regular, but that he had had attacks of pain in the lower part of the abdomen. He had been subject to these attacks for many years. They had generally lasted for about half an hour and had been relieved by vomiting. It was subsequently learnt that he used to obtain relief from these attacks by standing on his head.

Examination on admission revealed a thin man, looking very ill, who complained of pain and retched continuously during examination. The tongue was furred. The pulse rate was one hundred and thirty and its volume was poor. The temperature was 37.2° C. (99° F.). Nothing abnormal was detected in the chest. The abdomen was distended and tender in the epigastrium and the right and left hypochondriac and umbilical zones, the hypogastrium and the right and left iliac fossæ were in comparison depressed. The distended area was hyperresonant and there appeared to be movable dulness in the flanks. The liver dulness was normal. A diagnosis of high obstruction of the small bowel was made.

### Operation.

Under ether anæsthesia a right paramedian incision was made. On opening the peritoneal cavity there was exposed a large and very tense sac covered by a thin veil. The sac resembled a dilated stomach. The veil proved to be attenuated mesocolon. This was torn through and the stomach was aspirated. About three and a half litres of greenish fluid with some gas were evacuated. The opening in the stomach was sutured and infolded. It was seen that a volvulus of the stomach had occurred. It was now possible to untwist the volvulus in a clockwise direction. The stomach had twisted on the lesser curvature as an axis, the transverse colon had passed up with the greater curvature and was lying under the liver. The dorsal surface of the stomach thus presented anteriorly. The gastro-hepatic omentum was longer than normal and the pylorus appeared to be patient. No extensive exploration was possible, because of the patient's critical condition. It was seen, however, that some traction had been exerted on the tail of the pancreas. It was hæmorrhagic in appearance and surrounded by small areas of fat necrosis. The rest of the pancreas was normal in appearance. The stomach when collapsed reached to the pelvis. A litre of saline solution was left in the abdominal cavity and the abdominal wall was sutured. The patient was returned to the ward and subcutaneous injections of saline solution were administered. For the first few days the large atonic stomach was evacuated with the stomach tube. At first this was done twice daily and later once a day. As much as a litre of fluid was removed at a time.

### Subsequent History and Comments.

The patient made an uneventful recovery and was discharged wearing a Curtis abdominal belt on July 19, 1923.

Before discharge investigations were carried out by means of the opaque meal and the fractional meal tests. Dr. Clendinnen reported that the stomach was thirty-five centimetres long and that it extended to the pelvic brim on the left side. It contained a forty-eight hours' residue. The stomach was not completely atonic, but was hypotonic and in a condition of ptosis and the pylorus was functionating with no apparent obstruction. Dr. Apperly's report indicated that there were three hundred and eighty cubic centimetres of fasting stomach contents still present in the stomach together with some barium which had been given three days previously. There was also found a certain amount of starch and this indicated great gastric stasis. The high acidity of the fasting content and the late acid rise in fractional test meal was due to the stasis. As bile was present, it is clear that the stasis was not of pyloric origin.

This history contains all the characteristic features of a typical case of volvulus of the stomach as outlined in the literature on the subject. The first point of importance is the great distension of the stomach with the dorsal wall presenting and covered by a veil which is the attenuated transverse mesocolon. Care must be taken to close the aspiration puncture before untwisting the volvulus. If this is not done the puncture hole in the dorsal aspect of the stomach may be difficult to reach, especially if the puncture has been made high up. The second characteristic feature is that the transverse colon is found to lie above the stomach. There were two features in this case, however, which are not mentioned as a rule in the literature. The first of these is the hæmorrhagic appearance of the tail of the pancreas and the presence of small areas of fat necrosis around it. The second is the ptosis and hypotonic nature of the stomach.

No attempt was made to anchor the stomach for two reasons. In the first place it was impossible to tell in this patient where the stomach would lie under normal conditions. In the second place when the volvulus was untwisted the patient's condition was extremely critical and we were glad to get him returned to the ward.

On September 22, 1923, the patient reported fit and well. He was still wearing the abdominal belt. It is hoped to carry out further investigations by means of barium meals into the size and position of the stomach.

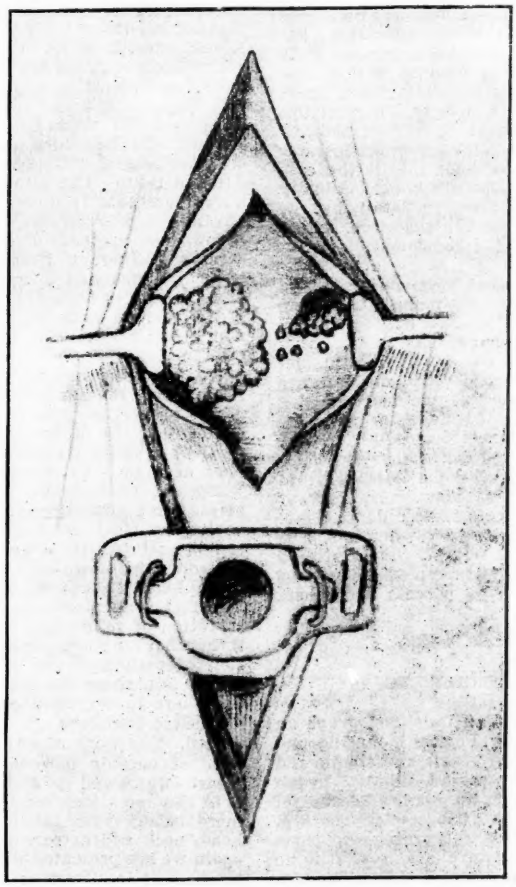
## MULTIPLE PAPILLOMATA OF THE LARYNX.[1]

By H. BALDWIN GILL, M.B., B.S. (Melbourne),
*Perth, Western Australia.*

THE following is a case of multiple papillomata of the larynx in a child aged six years.

The patient, a little girl, was admitted to hospital with the following history. Eight weeks previously there had been noticed partial aphonia following a cold. This had become more pronounced during five weeks and adenoids were removed. Up to this time there had been no noticeable dyspnœa. After the operation, however, a certain degree of laryngeal stridor developed and for fourteen days before admission to the Children's Hospital, there was great difficulty in breathing and recession of the intercostal spaces.

On admission, in spite of great respiratory discomfort, the colour and pulse were good. Examination of the fauces disclosed nothing of importance. With the laryngeal mirror a fleeting glimpse was obtained showing a clear epiglottis and no sign of membrane.



MULTIPLE PAPILLOMATA OF LARYNX.

The length of history practically precluded the possibility of a diphtheritic infection and a provisional diagnosis of papilloma having been made, a rectal anæsthetic was given and preparations made to examine the larynx more fully by means of Brüning's tube. The breathing became so hampered, however, that tracheotomy had to be performed as soon as the child was placed on the table. A large papillomata mass was seen in the subglottic portion of the larynx presenting almost into the tracheotomy wound. It was then decided to perform the operation of thyreotomy to facilitate the removal of what was obviously an extensive growth.

The growth is depicted moderately well in the accompanying sketch. It was removed with forceps and light curetting and found to be largely attached in the depths of the sacculi and along the margins of the cords. The points of attachment were very lightly cauterized with the galvano-cautery and the larynx closed. A tracheotomy tube inserted by the lower route was retained. The cannula was removed on the second day and subsequent healing was uneventful. The voice has so far developed to the extent of a hoarse whisper.

The risk of recurrence of laryngeal papillomata, especially of the multiple variety usually met with in children, is generally regarded as one of the main arguments against the performance of laryngotomy.

However, in the present instance, the degree of distress was so great that it was considered more than justifiable to clear the larynx thoroughly by the adoption of this method of treatment. In view of possible recurrence the child will be examined frequently and an attempt will be made to remove small buds of endo-laryngeal operation.

[1] Read at a meeting of the Western Australian Branch of the British Medical Association on September 19, 1923.

# Reviews.

## STAMMERING, CLEFT-PALATE SPEECH, LISPING.

THE second edition of Miss K. Emil-Behnke's book on stammering, cleft-palate speech and lisping consists of three parts. The first two part have been written by Miss

Emil-Behnke's parents. In this second edition Miss Emil-Behnke has revised and amplified these and she has added a third part embodying the results of her experience in the subject.[1]

In the first two sections the authors have discussed the reasons and explanations for stammering. In this connexion they have not touched upon the psychasthenic "make-up" of the stammerer. In the third section Miss Emil-Behnke uses the term "nervous diathesis," but does not explain it in terms of the psychic stigmata which coexist with stammering. Breathing exercises and elocutionary methods are described in detail. In many instances, however, these should be preceded by surgical interference, for example circumcision, removal of adenoids or of an elongated uvula, or correction of a deflected nasal septum may be necessary. The author also states that the preliminary treatment of spinal curvature, flat feet and knock knees may sometimes be required. It is difficult to understand how surgical procedure of this kind have any bearing upon stammering and cleft palate apart from their influence on breathing defects. She claims that favourable results are obtained by these methods. But throughout the book it is seen that suggestion operates by the personal influence of the teacher; this is the case with Miss Emil-Behnke's strong personality. Elocutionary and respiratory treatment is described in detail, but no special reference is made to the psychic condition behind stammering. Reference is made to the developmental effect resulting in cleft palate.

Modern treatment has shown that stammering has a psychic basis. Post-war stammering is a definite psychosis and is curable after the repression has been removed. Pre-war stammering, on the other hand, may be due to an ingrained neuro-pathic tendency. The latter is born, not made. These facts are not recognized by the author. The aim of treatment is the elimination of the fear complex which is the basis of all stammering, together with the development of confidence and self-assurance. These cannot be attained by respiratory and elocutionary methods alone. No reference has been made to the importance of relaxation from a psychic point of view, nor has any allusion been made to rhythmical, soft voice cadence.

The book is an honest attempt to show what has been accomplished by the efforts of the author. It is printed in clear type and in well bound. It is replete with practical illustration and useful advice to parents and others in regard to cooperation.

## SPECTACLES AND EYE GLASSES.

IT is a pleasure to read Dr. R. J. Phillips's monograph on "Spectacles and Eye Glasses: Their Forms, Mounting and Proper Adjustment." His style is agreeable and simple and he gives the impression that he knows his subject.[2] In the introduction there is found a most interesting résumé of the history of the invention and use of spectacles. The first chapter contains useful information concerning the parts of spectacle frames and the manufacture of lenses. It is no small triumph to explain to the uninitiated the nature of a toric lens and how it is ground. In the second and third chapters he deals with the principles of spectacle fitting, the centring and decentring of lenses and the prescription of the frames. They are worthy of careful study. The fourth and last chapter contains valuable information on the inspection and adjustment of spectacles and eye glasses. It may be candidly admitted that many, if not most ophthalmic surgeons, living in large cities where the services of skilled opticians are available, have a very slight acquaintance with the mechanical details of lens mounting and spectacle fitting. To a large extent this is inevitable, but an ophthalmic surgeon is not properly equipped if he cannot detect a faulty lens or an ill-fitting frame and insist that his correction be made up in the best way to suit his patient. For this purpose the present volume is an excellent guide especially to the surgeon who is compelled by circumstances to fit spectacles of his own prescription.

[1] "Behnke's Stammering, Cleft-Palate Speech, Lisping," by Kate Emil-Behnke; Second Edition, revised and enlarged; 1922. London: Baillière, Tindall & Cox; Crown 8vo., pp 110. Price: 3s. 6d. net.

[2] "Spectacles and Eye Glasses: Their Forms, Mounting and Proper Adjustment," by R. J. Phillips, M.D.; Fifth Edition, Revised; 1923. Philadelphia: P. Blakiston's Son & Company; Post 8vo., pp. xii. + 89, with 61 illustrations. Price: $1.50.

## PHYSICAL DIAGNOSIS.

DR. W. D. ROSE'S "Physical Diagnosis" is a book with a commendable purpose.[1] Its object as set out in the preface is "to incorporate in a brief work the principles of physical diagnosis, together with the physical findings in the commoner diseases of the respiratory and circulatory systems." As to the long felt want for a manual planned on these lines there can be no dispute, but Dr. Rose's attempt to fill it is disappointing.

The book is much too cumbersome. The epithet, "brief work," as applied to a volume of some seven hundred and fifty pages has a certain delicate, if unconscious, irony. Were not the style so prolix and obtuse the immense amount of information presented would atone for its inordinate length. The arrangement is on the whole sound. After detailing the clinical anatomy of the thorax the author proceeds to discuss the nature and genesis of the physical signs referable to the respiratory organs. Then follows an account of the clinical pathology, physical signs and differential diagnosis of various diseases of the bronchi, lungs and pleura. It would have saved a deal of repetition to have dealt with the diagnostic significance of the various signs as each was described, but Dr. Rose's plan certainly makes for completeness as a work of reference.

What may be termed "the physics of physical signs" is fully and in the main logically discussed. The description of the properties of sound is, however, confused and even misleading. The following sentence, explanatory of the part played by the glottis in the production of tubular breathing, is an example of the frequent looseness of style and thought which mars the book: "When during inspiration the inspired air passes through the orifice of the glottic slit and enters the wider cavity of the larynx beyond, aerial whorls are generated in the air content of the cavity, whorls which are conducted downward into the trachea and larger bronchi in the form of the inspiratory phase of bronchial breathing." The fact that cardiac and respiratory sounds are due to vibration of solid tissues appears to have entirely escaped the author's notice. The section dealing with the correlation of pathology and physical signs in respiratory disorders is perhaps the best part of the book, although here and there inaccuracies occur.

Cardiac disorders and their physical signs are then discussed. The work of recent years in regard to the importance of chronic muscular changes is entirely ignored. Heart failure and its detection are not even mentioned!

In the remaining sections of the book the author deals more briefly with the examination of the abdomen, the head, neck and extremities and the nervous system. Here again we are presented with a mass of detailed information, much of it irrelevant and some obsolete. Two quotations must serve to show how serenely unmoved Dr. Rose has been by the work of clinicians of this generation. In the chapter dealing with the examination of the abdomen he states: "When tenderness is elicited upon palpation of the surface of the abdomen, if not due to hyperæsthesia of the parieties, it points to a diseased abdominal organ." Under the heading of "Sensory Phenomena" we read that "variations in pressure sense, which possess the same significance as do similar variations in tactile sensation, are not relied upon as much as are the latter in neurologic examinations."

Dr. Rose states that in preparing his work he had in mind the student and the busy practitioner. For the former it is too inaccurate and for the latter it is not sufficiently concise and authoritative. The long felt want to which we have alluded, remains unfulfilled.

[1] "Physical Diagnosis," by W. D. Rose, M.D.; Third Edition; 1922. St. Louis: C. V. Moseby Company; Royal 8vo., pp. 755, with 319 illustrations. Price: $8.50 net.

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## A Sound Policy.

A wise obstetrician, when called upon to accept the responsibility of the lives and health of two individuals, the one still in embryo, accepts the charge on the condition that he can watch the prospective mother throughout the whole course of her pregnancy. He recognizes that pregnancy and labour are physiological processes, but is also aware that pathological disturbances may be superimposed on these processes. He realizes further that his ability to cope with a developed pathological process is small as compared with his power to deal with it before it has gained a firm hold on his patient. He therefore undertakes periodic examinations of his patient, watching particularly for those signs which experience tells him are the danger signals for the puerperal period. He advises his patient throughout the long period of waiting how she can mantain her health and well-being and indirectly those of her unborn babe. If he discovers evidence of disease, he applies such remedies as in his judgement will strike at the cause. His objective is to keep the fœtus healthy and to assist Nature in bestowing her most priceless gift on the mother, the unequalled joy of perfect motherhood. The accomplishment of this task is frequently within the power of the skilled and well trained obstetrician.

Hitherto the attempt to translate the underlying principle to the ordinary conditions of life of men and women has scarcely been made. To some extent the idea of watching for the earliest sign of disturbance of health and of grappling with pathological processes before they have become evident and therefore often incurable, is involved in industrial hygiene and in school hygiene. But in neither is the principle applied in a logical or exhaustive manner and the achievements usually fall far short of the ideal. It must be admitted that the task is immeasurably more complex and difficult than that presented to the obstetrician. His watch is not limited to a period; he has no special dangers to guard against; his patients have to follow their usual habits and occupations and are not recruited from a special class. Nevertheless the task is far less difficult than the herculean one of endeavouring to cure manifest disease. In recent times it has become a habit of certain prosperous citizens in the United States of America to contract with their medical practitioners to "overhaul" them at regular intervals in the hope that when illness overtakes them, it will be detected in its early and probably curable stage. This habit is admirable, provided that the overhauling is properly carried out. In the first place the practitioner should be cautious lest his methods of examination and his imprudent communications to his patient foster the development of introspection and some form of neurosis. In these modern days the sphygmomanometer is too freely used and the laity has acquired a propensity of talking and thinking about "blood pressure." In the next place the examinations must be very thorough and no pains may be spared in the search for the slightest signs of departure from normal physiological activity of organs and tissues. Again it is eminently advisable when the patient is not a young person, to obtain from former medical attendants a full account of all that has been garnered concerning the past illnesses and bodily peculiarities of the person.

Still more recently certain life insurance societies have introduced the admirable plan of requiring all policy holders for amounts of five hundred pounds and more to submit to periodical examinations by a medical practitioner engaged for the purpose and paid by the society. It is realized that these examinations may reveal information concerning a threatening illness or breakdown of health at a sufficiently early stage that steps may be taken either to strangle the invader or to postpone the advent of incapacity, manifest disease and premature death. The medical officer is not allowed to communicate the result of his examinations to the policy holder. If all is well, nothing is done. If something is found to be amiss, the insurance society informs the policy holder that

he is in need of medical advice and that the findings of their medical officer will be communicated to his usual medical attendant. This plan is likely to prove very advantageous to the insurance offices and to save them from early financial liabilities. It should also be valuable for the policy holders. Naturally much depends on the manner in which the examinations are conducted. But even if they take the form of a search for obvious signs of pathological lesions involving the cardio-vascular, the renal, the respiratory and the nervous systems, they should lead to direct benefit. We welcome the practice because it indicates the introduction of preventive hygiene applied to the individual into the everyday activity of the medical profession It should not be restricted to policy holders, but should be available for all persons. The medical profession could devise a scheme for the general application of this sound principle.

## Current Comment.

### THE PROGNOSIS OF SYPHILIS.

PROGNOSIS is usually relegated to a subordinate position, as if it had no place in scientific discussion. The want of interest attaching to prognosis in the teaching of students leads to the substitution of ill-founded opinions for statements based on carefully collected data. In many chronic diseases the practitioner is prepared to inform his patient or the relatives whether the affection is necessarily fatal or whether recovery can occur. He usually refuses to hazard an opinion concerning the actual prospects in store for his individual patient. This attitude of caution appears to be justified in view of the differences of opinion in regard to the course of a disease like syphilis. Some authorities following the optimism of Jonathan Hutchinson recognize the possibility of spontaneous cure of syphilis and may even anticipate such a happy termination more frequently than it occurs. Others take their guidance from pessimistic pathologists who encounter syphilitic lesions with terrible frequency in the *post mortem* room and deduce therefrom that cure must be rare, even when skilled treatment is applied. The actual incidence of cure is by no means easy to ascertain. Attempts to reduce such information as may be collected, to statistical figures are unreliable, chiefly because the criterion of cure varies greatly with different observers. In tuberculosis the difficulty in arriving at a reliable prognosis primarily on the lack of a uniform standard of early diagnosis and secondarily in the evidence of clinical recovery. In syphilis there should be little or no difficulty in the diagnosis at an early stage. For practical reasons it is essential to define the term cure or recovery. Strictly speaking cure should imply not only the death of all the causative organisms in the body, but also the restoration of all the tissues to a condition of full physiological activity. Unfortunately no direct evidence of the death of all the *Spirochætæ pallidæ* in the body is available. It is taught that the immunity to infection does not persist after complete cure in syphilis. While positive proof may not exist in support of this assumption, clinical observation compels us to accept it as true. An undoubted second attack of syphilis may be accepted as evidence of the cure of the first infection. There are many records of this occurrence after thorough treatment with arseno-benzol drugs. Dr. John A. Fordyce holds the view that reliance should be placed on the experience of medical practitioners who see many patients in all stages of this disease.[1] He claims that there is a very close correlation between the signs and symptoms of the disease and the complement fixation reaction. While in exceptional circumstances and in incidental phases of the disease the blood serum may fail to fix complement in the Wassermann test, it would be illogical and misleading to forget the rule that a reaction means a syphilitic infection. He examines the significance of the failure of the blood serum or of the cerebro-spinal fluid to fix complement. He finds that in about 6% of persons with late active cutaneous and with early malignant syphilis the blood serum fails to yield a reaction. The same obtains in cardio-vascular syphilis, in certain localized progressive vascular affections of the eye and occasionally in congenital syphilis. On the other hand it is usual for the blood to acquire the power to react after treatment has been adopted. In the next place he reminds his readers that in certain types of neuro-syphilis the cerebro-spinal fluid yields a reaction, while the serum does not. He claims that experience in hundreds of thousands of patients has proved the Wassermann test to be the most reliable procedure. If a persistent reaction is obtained, it is safe to assume that active spirochætes are present somewhere in the body, especially if the result of the tests is confirmed by workers in several laboratories. Similarly it may be assumed that in the vast majority of patients a failure on the part of the serum and cerebro-spinal fluid to react in the test after intensive treatment indicates cure. Turning to the prospects of a patient in whom the infection is detected in the early stages, he does not hesitate to state that cure may be promised, provided that the practitioner is familiar with the possibilities of the disease and is skilled in the application of modern therapeutic methods. He deplores the practice of giving a specified number of injections of an arseno-benzol drug, without reference to the patient and his response to the treatment. He is even prepared to give a good prognosis in neuro-syphilis, provided that treatment is energetically applied before signs of degenerative changes have manifested themselves. The indiscriminate use of arsenical compounds in late syphilis may do much harm and may lessen the chances of alleviation or recovery. It is possible to

[1] *The American Journal of the Medical Sciences*, September, 1923.

obtain a symptomatic cure in the tertiary stages of the disease, even when a Wassermann reaction is persistently obtained. Dr. Fordyce refers to certain individuals who are uncured of their syphilitic infection, whose serum reacts to the test and who are not treated efficiently, without suffering from any late manifestations of the disease. These persons at times die of some disease unconnected with their syphilis. This is an uncommon occurrence and should not influence the physician in forming a prognosis. As a rule good results can be obtained with the modern arsenical compounds combined with mercury, but it is essential that the practitioner should study the possible toxic effects of these drugs and should endeavour to differentiate between the toxic effects of the drugs on the liver, the blood vessels and other organs and the pathological changes of the disease in these tissues. The enormous amount of information concerning the disease and its response to modern treatment can be utilized for the purpose of assaying the prospects of cure. Dr. Fordyce is probably justified in demanding that the medical practitioner who undertakes the treatment of patients suffering from syphilis, should render himself more closely acquainted with the course of the disease and with the effects of specific treatment than the average doctor is. He has grave responsibilities in reassuring his patient who comes to him depressed under the mental shock of the knowledge of his infection. He may be required to advise his patient whether or not he may marry and beget children. He will be asked questions concerning the length of the contagion. To gauge the fact of cure he has certain criteria to which he should always turn his attention. In the first place he must demand adequate treatment. The next point is that the serum no longer reacts to the Wessermann test, even after a provocative injection of arseno-benzol drugs and that this condition is maintained for at least a year after the cessation of all treatment. The third criterion is that the cerebro-spinal fluid does not yield a reaction and does not reveal any other indications of an active syphilitic infection. Lastly the cardio-vascular system must be free from all signs of involvement. The physician should avoid both undue optimism and exaggerated pessimism. If he has experience on which to base his judgement and a wide knowledge of the disease and its vagaries, he will learn how to form a reliable prognosis in the majority of cases. It is probable that cure is by no means uncommon.

## VOLVULUS OF THE STOMACH.

In this issue we publish an interesting report by Mr. W. Allan Hailes of a case of volvulus of the stomach. The condition is of such rarity and the safety of the patient depends so much on the recourse to surgical operation that attention may well be drawn to it. Under normal conditions the anatomical relations are such that the occurrence of volvulus is unlikely and is stated by Mayo Robson to be probably impossible. Conditions of atony associated with gastroptosis, however, predispose to its occurrence. It has occurred in association with diaphragmatic hernia and has followed injury, either of the abdomen or as a later complication of an injury to the dorsal portion of the spine. A case similar to that described by Mr. Hailes has recently been reported by Dr. Max Thorek.[1] The patient in the latter instance was a woman, aged seventy-seven years. The history was very similar to that of Mr. Hailes's patient. Incessant vomiting gave place to dry retching and fruitless attempts were made to pass a stomach tube. Dr. Thorek diagnosed the condition of his patient as acute intestinal obstruction and stricture of the cardiac end of the œsophagus. Operating under spinal anæsthesia he found the stomach to be completely twisted on its horizontal axis to the extent of about 270°. The contents were aspirated and the stomach was suspended to the anterior abdominal wall by the Rovsing method of gastropexy.

Dr. Thorek states that volvulus of the stomach may be partial or total. It is said to be total when the viscus turns entirely about the cardio-pyloric axis for 180°. If only a part of the viscus turns, the volvulus is incomplete or partial. He points out, however, that in the strictest sense of the term no volvulus of the stomach can be regarded as total because the bare area near the cardiac orifice which is in contact with the diaphragm, does not move unless subjected to extraordinary tension. It is fixed by the fold of peritoneum known as the gastrophrenic ligament. Dr. Thorek also classifies volvulus of the stomach as iodiopathic and complex. It is idiopathic when there is no apparent co-existing pathological condition in the organ and complex when there is some associated condition present such as ulcer, hernia *et cetera*.

It is obvious that the diagnosis of volvulus of the stomach will always be a matter of extreme difficulty. The conditions from which it will have to be distinguished, are pancreatitis and obstruction of the small bowel. The failure to pass a stomach tube may be an aid to diagnosis. Niosi diagnosed an instance of the condition before operation and Rosselet demonstrated a partial volvulus by means of a radiogram and verified it at operation.

The treatment of volvulus of the stomach is essentially surgical. Dr. James T. Pilcher, in discussing Dr. Thorek's report at the seventy-fourth annual session of the American Medical Association, said that in one instance he had been able to "detortionize" the stomach far enough to insert a stomach tube. After evacuating the stomach and thus causing deflation he had been able to rotate it back into place. Dr. Thorek described this as a most important accomplishment in gastric surgery. Subsequent to reduction of the volvulus some form of fixation will as a rule be adopted, unless as in Mr. Hailes's patient some definite reason against this procedure exists.

Mr. Hailes intends to carry out further investigations by means of the barium meal into the condition of the stomach in his patient. It will be of interest to note whether any improvement in the size and general tone of the organ will occur as a result of treatment.

[1] *The Journal of the American Medical Association*, August 25, 1923.

# Abstracts from Current Medical Literature.

## MEDICINE.

### Arterial Hypertension.

F. M. ALLEN AND T. W. SHERRILL (*The Journal of Metabolic Research*, October, 1922) publish some observations on the effect of sodium chloride restriction as a treatment for arterial hypertension. They point out that a custom had arisen of giving large quantities of fluid, such as milk or water, in the treatment of hypertension, but that there was little evidence to support this method. A salt-poor diet has been advocated in France for this condition, but appears to have been largely unsupported because accurate clinical observations have not been made in other countries in connexion with this method of treatment. One hundred and eighty patients were studied all of whom had previously been treated by one or more medical practitioners. The authors conclude that limitation of protein intake, milk diet and under-nutrition are only palliative; bleeding is a useful emergency measure; spinal puncture is of no proven value; physico-therapy and climatic treatment are only temporary expedient. Drugs are of no value except for the treatment of constipation. Diuretics, iodides and mercury give no permanent relief. Mercury may be harmful to the kidneys. Digitalis is sometimes useful when heart failure occurs. Obesity is a rare concomitant of hypertension and beneficial results are not generally associated with any considerable loss of weight (*exempli gratia* two kilograms). One hundred and nine patients were placed on a salt-free diet; fifty-eight received one to three grammes of sodium chloride per day. The plasma chloride did not necessarily vary with the chloride intake, nor did it vary with the blood pressure. Blood urea was not generally high in patients with hypertension with nephritis. Albumen and casts were present at times in the urine of the great majority of these patients. The diet was only regarded as salt-free when not more than 0.5 gramme of chloride per day was present in the urine. Food containing as little sodium chloride as possible was used and was made tasty with condiments. No salt was added to the foods. Patients were encouraged to take moderate exercise and benefited by it. It was found that symptoms of salt privation occurred in some patients generally when nephritis complicated hypertension. These symptoms were mainly uræmic and had to be met by adding salt to the diet. Salt restriction was found to have a beneficial effect on the blood pressure and on the symptoms of patients suffering with hypertension with or without cardiac failure. In the latter type of case such treatment was aided with digitalis. Renal asthma was frequently relieved by salt-free diet. The essentials of the treatment are to restrict the salt sufficiently and for a long enough period such as six to eight weeks at least.

### Acute Dilatation of the Stomach.

T. HERNANDO (*Journal de Médecine de Bordeaux*, June 10, 1923) published the notes of four instances of acute dilatation of the stomach not associated with operative procedure. He also reviewed the literature on this subject. The condition was observed by him in patients who were the subjects of acute appendicitis, biliary colic, chronic indigestion and hæmorrhage after childbirth. The symptoms were collapse, pallor, rapid feeble pulse and sooner or later vomiting or greenish fluid or semi-fluid material in repeated small quantites or even in quantities up to two litres. Gastric lavage removed this fluid in patients who had not vomited it, and it was found that the stomach filled up again in a few hours. After being emptied a second time the patient recovered if seen before the condition had lasted too long. The condition of acute dilatation of the stomach is a rare one apart from that associated with operation. The pathology of the condition is not well understood. Early diagnosis and removal of the stomach contents by means of a stomach tube are the essentials in treatment. Enemata of magnesium sulphate and hypodermic injections of one-half to one milligramme of physostigmine sulphate may help to increase the tone of the gastro-intestinal tract.

### Pulmonary Tuberculosis.

F. BESANÇON AND M. CHEVALLEY (*Revue de la Tuberculose, Numéro* 3, 1923) publish the results of their researches on certain aspects of pulmonary tuberculosis which they had placed before the National Congress on Tuberculosis in June, 1923. They point out that certain infectious diseases tend to light up a latent focus of pulmonary tuberculosis. Measles, whooping cough and epidemic influenza are the most obvious of these, whereas typhoid fever is rarely followed by tuberculosis. The effect of pneumococcal infections in this respect is doubtful, as also is the effect of syphilis. The authors considered that tuberculous subjects are not more liable to contract infectious diseases than healthy people. On the subject of secondary infection of the sputum in the evolution of phthisis they state that the passage of the sputum through the bronchi and buccal cavity causes a contamination with pneumococci, streptococci and *micrococcus catarrhalis*. They consider that this contamination is the cause of the apparent frequent secondary infection in pulmonary tuberculosis. They found that if the sputum was washed in sterile water and then examined in fresh films the tubercle bacillus was generally found by itself (in thirty-seven among fifty-eight tuberculous subjects examined). They quote a number of authors who found a similar absence of secondary organisms in the hectic fever of pulmonary tuberculosis. They conclude that the hectic fever was not due to secondary infection and they state that those observers who had found frequent secondary infection in these patients, had used a faulty technique. In the bronchitic forms of pulmonary tuberculosis, however, they state that a great variety of other organisms besides the tubercle bacillus were found, but in these instances it was the bronchitis rather than the tuberculous infection which gave rise to symptoms. They finally conclude that systematic vaccine-therapy is contra-indicated in pulmonary tuberculosis except in rare instances.

### The Clinical Estimation of the Size of the Heart.

JOHN W. BOYCE (*The Atlantic Medical Journal*. April, 1923) elaborates the thesis that cardiac percussion is unreliable and inaccurate. Errors in cardiac percussion are common enough, but they are not necessarily due to lack of skill. In the case of a small cylinder (the heart) inside a large one (the thoracic wall) where, he asks, can the edge of the smaller cylinder be said to lie? The difference between the heart in the erect position and the heart in the recumbent position is recognized, yet observers commonly state very exactly in centimetres the distance of the left border of the heart from the middle line and do not state whether the examination was made in the erect or in the recumbent position. On the other hand, X-rays offer an accurate and practical method for the determination of the size of the heart or at least of two dimensions of the heart. The orthodiagraph or the teleoröntgenogram gives an accurate silhouette. The same tube distance must be maintained at each examination. The author insists that mitral stenosis can be diagnosed by means of the fluoroscope, the dilated heart with preponderance of enlargement in the auricle being characteristic. Moreover, the first physical sign of cardiac failure is not enlargement of the area of percussion dulness or shortness of breath on exertion, but a haze of the lungs due to passive congestion. The haze is sometimes so deep as to obscure the cardiac borders.

### Open and Closed Tuberculosis.

E. RIST AND P. AMEUILLE (*Revue de la Tuberculose, Numéro* 3, 1923) publish the papers read by them before the National Congress on Tuberculosis at Strasburg in June, 1923. They discuss the nature of open and closed tuberculosis. In 1882 Koch stated that the tubercle bacillus was absent from the sputum of half the phthisical patients of a certain series examined by him. In the same year Balmer and Traentzel, following the examination of the sputum of one hundred and twenty tuberculous subjects laid down the following laws: "When tubercle bacilli are found in the sputum, pulmonary tuberculosis exists; when tubercle bacilli are not found in the sputum, in spite of repeated careful

examination, pulmonary tuberculosis does not exist." Koch himself finally subscribed to these laws. Discussion has since raged round this point. The only fact on which all agree, is that the presence of tubercle bacilli is the only certain sign. The authors point out that the diagnosis has frequently been made in the absence of this sign and, taking statistics from France and America, they show that from 30% to 70% of patients under treatment in different clinics do not have tubercle bacilli in the sputum. They further showed that of patients studied by Burnard 74% of those with tubercle bacilli in the sputum died in four to nine years after the demonstration of bacilli, whereas of those treated as tuberculous, but with no demonstrable bacilli in the sputum, only 12% died in the same period. Similar figures are quoted from Dickinson: fifty-three deaths out of one hundred and sixty-seven patients with tubercle bacilli and only four deaths among one hundred and twenty with no bacilli in the sputum. The conclusion is that a great number of wrong diagnoses have been made in the past and the suggestion is made that radiological examinations and much more careful examinations of the sputum should be made before a patient is pronounced tuberculous or treated as such.

### Encephalitis Lethargica.

A. J. HALL (*The Lancet*, April 14, 1923) in the Lumleian Lectures on encephalitis epidemic alludes to the history and to the epidemiology of the disease. It is more prevalent in Europe than in the United Kingdom. In 1921 the number of infections reported in England and Wales was 1,450, whereas only 454 were notified in 1922. The disease occurred mainly in the winter, patients of all ages and both sexes were attacked. The mortality varied between 22% and 48%. There was evidence that pregnant women were especially prone to the disease. Though generally not spreading by contagion, a few small epidemic outbursts occurred. The incubation period is one to fourteen days, generally ten. The relationship to epidemic hiccough is uncertain. It is probable that the disease is not related to the Australian "X" disease which may have been an aberrant form of poliomyelitis. The main lesions in encephalitis were meningeal hæmorrhage, perivascular lymphocyte invasion, changes in nerve cells and glial proliferation mainly in the mesencephalon and basal ganglia. The cortex, cord, nerve trunks and ganglia were sometimes affected. Minute granular bodies have been described in the nerve cells. The onset was sudden or gradual. Apoplexy, epilepsy, syncope or vertigo, mania, delusional or confusional insanity, delirium or excito-motor phenomena may accompany the onset. Fever, drowsiness, headache, diplopia or other cranial nerve palsies and insomnia were common symptoms. Lethargy was generally present at one time or another lasting from days to months. The common localizing symptoms were paralysis of eye muscles, internal and external, nystagmus, facial and hypoglossal paralysis, dysphagia, myoclonus, chorea-like movements, hemiplegia, paraplegia and monoplegia. Myasthenic symptoms, cerebellar symptoms, convulsions, hypertonus, katatonus and symptoms and signs of the Parkinsonian type were less common. The disease was transmitted to monkeys and rabbits. The virus was found in the saliva, nasopharynx, herpetic vesicles and in the central nervous system. Prognosis in the different types varied considerably. There were mental and moral residua, nocturnal excitement in children and respiratory residua such as polypnœa, bradypnœa, periodic breathing. Excito-motor residua in the form of choreitic, myoclonic, bradykinetic and shaking movements. Parkinsonian residua were common. Calcium deposits were found in the vessel walls and in the brain substance by several observers. It is suggested that the residua might be due to interference with the blood supply.

### The Spleen.

W. J. MAYO (*Annals of Clinical Medicine*, November, 1922) publishes some views on the functions and diseases of the spleen. In malaria, syphilis, typhoid and tuberculosis the causal organism is found in the spleen, often in abundance, and the spleen is enlarged. He considers that the spleen catches the organisms or strains them from the blood and thus to some extent protects the infected person. If the spleen is removed in certain chronic forms of malaria and syphilis which do not respond to medicinal treatment, recovery often takes place. Possibly therefore the spleen is a storehouse of organisms which constantly reinfect the blood and maintain ill-health. Removal of the spleen in splenic anæmia is followed by recovery in many instances. Splenectomy for pernicious anæmia has not been justified by results. In hæmolytic icterus and leuchæmia (chronic spleno-myelogenous type) removal of the spleen has been followed by long periods of relief when the operation was undertaken after X-ray or radium treatment had reduced the size of the spleen and the number of white cells and had improved the anæmia.

### Tuberculous Disease of Endocrine Glands.

T. HOMER COFFEN (*Endocrinology*, January, 1923) has reported the history of a patient suffering from tuberculosis peculiarly limited to the endocrine glands. He considers the record unique. He recognizes that since the functions of the glands of internal secretion are still far from being definitely established, any attempts to explain clinical phenomena on anatomical foundations are hazardous. He claims, however, that the correlation of the symptoms in his patient with the presence of lesions in organs believed to be responsible for definite symptom-complexes justifies his report of the case. The patient was a man of large frame and great height (gigantism) with marked hirsutism. Caseous tuberculous nodules found at autopsy in the hypophysis gave an explanation of these symptoms. Caseous tuberculosis of the adrenal glands was responsible for manifestations of Addison's disease—peculiar bronzing of the hands and wrists and pigmentation of the buccal mucous membrane. Glycosuria was present for three years prior to the patient's death and caseous nodules in the pancreas were discovered *post mortem*. Six years prior to death the patient had undergone an operation for the excision of a colloid goitre and in the remaining portions of the thyreoid glands caseous nodules were found at autopsy. Tuberculous nodules were also present in the right epididymis and in the prostate. A hydrocele had been subjected to radical surgical treatment ten years before death.

### The Phosphorus and Calcium of the Blood in Renal Disease.

O. L. V. DE WESSELOW (*The Quarterly Journal of Medicine*, July, 1923) has investigated the phosphorus and calcium content of the blood of seventy-four patients all of whom manifested protein in the urine. Forty of these were suffering from nephritis of various types. Twenty-five suffered from albuminuria of pregnancy and some of these gave a previous history of nephritis. The remaining nine had been admitted to hospital for various surgical affections of the urinary tract or for cardio-vascular disease. The author takes as the upper limit of normality for the inorganic phosphate of the plasma five milligrammes per hundred cubic centimetres. According to this standard the urine of nineteen of the seventy-three persons yielded a phosphorus content which was abnormally high. In eight persons the figure was above ten milligrammes. All these subsequently died. The normal serum calcium content lies between nine and eleven milligrammes per hundred cubic centimetres of serum. In eleven out of one hundred and forty-two observations a calcium content below seven milligrammes was found. Five out of six patients giving these low values died. Phosphorus retention if considerable is of grave prognostic import. This is capable of two explanations. Either it is indicative of a grave degree of renal failure or else the phosphate is of itself toxic. The author refers to the experimental work of several observers in regard to the toxicity of the phosphate and says that an increase in the inorganic phosphorus of the plasma appears to be closely associated with the development of the symptoms of uræmia. A diminished serum calcium content is of serious import. The author states that it is in some way connected with the generalized tremor and local twitchings of the final stages of uræmia. The calcium content in nephritis appears to stand in inverse relationship to the content of inorganic phosphorus.

# British Medical Association News.

## SCIENTIFIC.

A MEETING OF THE SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held in the Lister Hall, Hindmarsh Square, Adelaide, on September 27, 1923, DR. JAMES RIDDELL, the PRESIDENT, in the chair.

### Synovitis of the Wrist Joint.

DR. JOHN CORBIN showed a man who had a large swelling on the back of the wrist which extended up the back of the fingers. Fluctuation could be obtained and all the swellings seemed to communicate with one another. There was also a swelling around the index finger, presumably in its flexor tendon sheath. Some fluid had been withdrawn and inoculated into a guinea pig. One month later multiple tubercles had been discovered in the guinea pig.

### Gun Shot Wound of Shoulder.

Dr. Corbin's second patient was a man with an old gun shot wound of the shoulder which had lead to a loss of the head and part of the neck of the humerus. An operation had been performed. The deltoid muscle had been split and the upper end of the shaft of the humerus removed until cancellous bone was exposed. A hole had been bored into the middle of the glenoid cavity and the stump of bone fixed to it with wire and the arm had been put up at right angles for two months. At the time of the meeting there was no bony union, but a false joint had formed with good movement. The arm was improving daily.

### Steel Foreign Body in the Eye.

DR. JOHN MUIRHEAD showed a man, aged fifty-four years, who had come to him on January 5, 1923, for failing vision in the right eye. The vision of the right eye was $^{6}/_{36}$, while that of the left eye was $^{6}/_{5}$. Six months previously the patient had been up a ladder striking the head of one hammer with another. He had felt a prick in his right eye and had seen a web floating before him for an instant. He had brushed his eye and had resumed his work. He had been unaware that a foreign body had penetrated the globe. Some time after he had found that his sight was failing in the right eye and had sought advice. Careful examination of the eye with the corneal microscope had disclosed a faint track-like nebula (corneal) in the outer and lower quadrant and a minute perforation of the iris near the pupillary margin. The eye had been quiet and had not been painful nor lachrymating. There had been a roseate-like type of traumatic cataract present and embedded in the densest portion of this lenticular opacity had been a very minute black spicule. He had not been seen again for seven months. He had returned with the rare condition of *siderosis bulbi* and vision had been reduced to $^{3}/_{60}$ owing to the further opacity of the lens. Dr. Muirhead remarked the pupil was dilated and the earliest clinical manifestation could be observed, namely oral patches of rusty deposit which formed a crown arranged radially in a ring corresponding with the edge of the dilated pupil. This appearance was pathognomonic. He said that the lens should be removed with the remains of the foreign body, as if this were not done, the iris, cornea, the angle of the anterior chamber, the lens fibres themselves, the *pars ciliaris*, the ciliary processes and the retina would all become infiltrated by the brownish granules and the resultant retinal degeneration would render an aphakic eye useless.

### Acute Pyelitis with Ureteral Catheterization.

DR. G. H. BURNELL showed the temperature chart of a patient who had had pyelitis, to illustrate the value of ureteral catheterization when ordinary methods of treatment failed. The patient, a married woman, aged twenty-four years, had had a miscarriage when three months pregnant on August 9, 1923. On August 11, 1923, she had first been seen and was bleeding profusely. She had been curetted on the same day. Shortly afterwards a right-sided salpingitis had appeared, which, however, had subsided without operation. On August 21, 1923, the temperature had been normal and she had remained well until August 27, 1923, when the temperature had risen suddenly to 40.5° C. (105° F.). The pyrexia had been accompanied by vomiting, repeated rigors and acute pain in the left loin. The urine had contained a large amount of pus. Attempts to palpate the left kidney had caused agonizing pain. Intensive alkaline treatment had been prescribed, but the patient's general condition had deteriorated rapidly and by August 30, 1923, had been so grave that nephrotomy had been contemplated. It had been decided, however, to try drainage of the kidney pelvis through the ureteral catheter. Her temperature at this stage had been 40° C. (104.2° F.) and the pulse rate 140; she had appeared to be extremely toxic.

The ureteral catheter had been passed into the kidney pelvis without difficulty and the cystoscope had been withdrawn leaving the catheter in place. Two hours afterwards her temperature had fallen to 38.3° C. (101° F.) and had remained at this for the next twenty-four hours. Even more evident than the fall in temperature and pulse rate was the rapid improvement in the patient's general condition. The catheter had been removed on August 31, 1923, twenty-four hours after its insertion. Immediately after its removal the temperature had risen to 38.4° C. (103° F.), but had fallen again at once and on September 1, 1923, had become normal and had remained so. Four days after the removal of the catheter the urine had been examined microscopically and had been found to contain no pus cells. No attempt had been made to wash out the kidney pelvis or to inject antiseptics, as although this procedure had been recommended, it was open to question whether the benefits of pelvic lavage were not mainly due to drainage established by the passage of the catheter.

### Twin Placentæ.

DR. C. DUGUID exhibited twin placentæ from a labour with delay early in the second stage. Examination three weeks before the onset of labour had revealed a first position head presentation and a normal pelvis. The patient, aged forty-two years, a primigravida, had been admitted to hospital at two o'clock in the morning of September 11, 1923. At half-past four o'clock 0.015 gramme of morphine and 0.6 scopolamine had been administered and the sleep had continued for twelve hours at which time the pains had lessened. In the evening pains had started more strongly than before, but with very little result.

An examination had revealed a fully dilated *os uteri* and a thickened piece of tissue, rounded and firm at the left side of the brim of the pelvis obstructing the passage of the head. An anæsthetic had been given and the head had been pushed upwards. The obstructing mass had then been pushed on and had receded into the *liquor amnii* in the cavity of the uterus. While the hand was retained in position, forceps had been applied and a live child weighing 3.8 kilograms had been delivered without difficulty, although on account of some resistance at the perineum, episiotomy had been performed. Thirty minutes later Crédé's method of expressing the placenta had been tried at intervals, but without result. The hand had been introduced and a free mass had been recognized to be a compressed fœtus and placenta, the cause of the obstruction to the passage of the living child. The full time placenta had been densely adherent over fully one-third of its surface; it had measured 21.6 centimetres in diameter. The smaller placenta had measured 14.7 centimetres in its greatest diameter and had been separated by membrane from the other. The fœtus which had been remarkably well preserved, had measured 20.3 centimetres. It had been adherent at two points to the fœtal surface of its placenta. The membranes had been complete, but the amniotic fluid had been absorbed. Death of the second fœtus had probably taken place in the fifth month. It was likely that when the healthy membrane had ruptured, the aborted mass had prolapsed and had brought about the delay. The episiotomy wound

had healed by first intention and the patient had been able to get up on the tenth day.

### Edward Jenner.

DR. A. A. LENDON then gave his address on "Jenner: His Life and Work" (see page 535).

DR. JAMES RIDDELL on behalf of the members of the Branch thanked Dr. Lendon for his most excellent address. He wished Dr. Lendon *bon voyage* as this was the last meeting that he would attend before his trip to England.

DR. F. S. HONE said that he was very glad that the opportunity had been taken by the Branch to perpetuate the memory of Jenner. He did not know whether the idea had originated from the Council or from Dr. Lendon; it sounded like one of Dr. Lendon's happy ideas. But whatever the origin of the idea, there would be a consensus of opinion that Dr. Lendon was the member most fitted to give such an address. He had, indeed, laid the Branch under a debt of gratitude for his scholarly, interesting and historical address and for the further trouble he had taken to illustrate it by the views and graphs shown.

Dr. Hone further said that he was glad Dr. Lendon had dwelt at length on the close relation between John Hunter and Jenner. This was one of the most fruitful friendships in medical history and it was interesting to speculate to how great an extent they owed Jenner's discovery of vaccination to Hunter's example and influence. His famous injunction: "Do not think: try! Be patient, be accurate!" not only had great influence on Jenner, but was a fine motto for all members of the profession. And he was glad also Dr. Lendon had emphasized Jenner's natural capacity, especially as an observer. Reading the history of his discovery, one was struck with this feature.

As part of the speaker's work lay in the realm of preventive medicine, he, perhaps, realized more than most members how true were Dr. Lendon's remarks as to the enormous changes that had been wrought by vaccination in the last one hundred years. It was said that 95% of the children born in the eighteenth century contracted small-pox before reaching adult life. To-day, most practitioners in Australia never saw a case during their professional career. When a scare arose owing to an introduced case, men were apt, through this very lack of familiarity, either to label innocuous cases wrongfully or to treat a case of small-pox throughout as typhoid fever. This had actually occurred in recent years. On this account it was a good thing to have the importance of the subject brought before the Branch in the way it had been done that evening. Personally, he was extremely grateful to Dr. Lendon for his interesting and instructive address.

DR. W. T. HAYWARD thanked Dr. Lendon for his most interesting and scholarly address. The subject had a personal interest for him in asmuch as when a house surgeon at Liverpool many years before he had contracted small-pox, but, thanks to vaccination and re-vaccination, he had escaped without any permanent disfigurement. With the bewildering advance of medical science there was very little time left for the study of medical history and biography, yet in his opinion a medical man had not completed his education unless he had a fair knowledge of those subjects. It was a happy thought of the Council to invite Dr. Lendon to deliver this address, for he knew of no man who had a greater grasp of the subject or one so able to deliver it with a literary charm. He trusted that Dr. Lendon during his approaching holiday would be able to devote some time to it and that on his return he would give the Branch the benefit of his work.

DR. LENDON replied briefly and thanked the members for listening to him so patiently and for their good wishes.

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A MEETING OF THE WESTERN AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held on September 19, 1923, DR. D. M. MCWHAE, C.M.G., C.B.E., the PRESIDENT, in the chair.

### Multiple Papillomata of the Larynx.

DR. H. BALDWIN GILL reported an instance of multiple papillomata of the larynx of a child (see page 545).

### Severe Diabetes Treated with "Insulin."

DR. D. M. MCWHAE, C.M.G., C.B.E., read the history of a patient suffering from severe diabetes whom he had treated with "Insulin" (see page 544).

### Paralysis Agitans.

Dr. McWhae also showed a man, aged thirty-five years, whom he had seen for the first time on September 19, 1923. The patient's disability had commenced five years previously when he had noticed difficulty in writing. Two years later he had begun to carry his right arm bent at the elbow. At the same time the right leg had become somewhat stiff and he had dragged the toe slightly on walking. Dr. McWhae pointed out that the patient had some stiffness of the right arm and leg. There was also a slight tremor resembling that of *paralysis agitans*. The patient carried out with difficulty such movements of the right hand as picking up a pin. Dr. McWhae said that there were no other abnormal neurological signs. Although the trouble had begun after a nervous breakdown and an attack of rheumatic fever in 1917, the condition had very slowly established itself. He was of the opinion that the disability was not a neurosis, but that it was a *paralysis agitans* of a unilateral type.

Dr. McWhae's third patient was a man, aged fifty years, who presented a very similar history to that of the preceding patient. He had been referred to Dr. McWhae by Dr. Hadley two days before the meeting. Five years previously his friends had noticed that he began to carry his arm in a flexed position. He had gradually become unable to write. Two or three years later the right leg had become somewhat stiff and it had begun to drag when walking. Dr. McWhae pointed out that physical examination revealed some stiffness and weakness of the right arm with slight tremor of the right hand like that of *paralysis agitans*. The right leg was also slightly stiff. The only other neurological signs present were a slight contracture upwards of the upper lip on the right side with slight right sided facial paresis and an increase in the right ankle jerk.

Dr. McWhae said that the physical signs suggested that the condition was one of unilateral *paralysis agitans* with an added pyramidal degeneration of slight degree. He thought that a lesion of the right pyramidal tract in the region of the left optic thalamus would account for the Parkinsonian tremor. There was a rare disease called unilateral spastic hemiplegia which had been described by Mills and Spiller. In this disease all the complicating symptoms of cerebral disease were absent. He had not seen an instance of this disease. Its rarity and the very slight degree of pyramidal degeneration which had been found, made its presence in the patient very unlikely.

### Infantile Eczema.

DR. A. JUETT showed an infant who was suffering from eczema. The condition had improved on a reduced diet and after the application of zinc ointment.

### An Atypical Rash.

DR. J. KENNY showed a man who was suffering from an atypical rash due to the administration of iodide of potassium.

### Vaso-motor Instability.

DR. R. H. CRISP showed a male patient, aged thirteen years, who had come to hospital complaining of profuse sweating of the palms and soles. The patient had complained that he got dizzy and felt faint especially on rising from bed in the mornings. During these turns he got very pale. Examination had revealed a poorly nourished lad, thin and with a sallow complexion. The palms and hands had sweated profusely. The skin of the palms and soles had desquamated prior to coming under observation. He had an irregular, deformed chest. The heart had been normal, but the pulse rate had been slightly accelerated. No abnormality had been found on

examination of the urine. The systolic blood pressure with the patient in the recumbent position had been one hundred and twelve millimetres of mercury. On standing up it had been one hundred millimetres of mercury. Dr. Crisp thought that there had been a general suggestion of endocrine disturbance. Puberty had not made its appearance. The dizziness and faintness had almost completely disappeared under treatment with cod liver oil and phosphorated oil and with a mixture containing Fowler's solution, tincture of belladonna, calcium lactate and sodium bromide. The sweating of the palms and soles had improved immediately with local treatment consisting in a lotion of a solution of salicylic acid in a strength of 0.3 gramme to thirty cubic centimetres of water.

### Mongolism.

Dr. Crisp also showed a female child, aged four years, who presented the typical appearance of a pure mongol. The child had sat up first at the age of twelve months. Walking had not occurred till the age of three years. At the present age of four she was learning to talk a little. The mother had had two previous pregnancies. The first child had died at birth. The second child was healthy. The mother was a middle-aged woman. Dr. Crisp drew attention to the slanting eyes and the well marked epicanthic folds. Some blepharitis was present. The nasal bridge was depressed. The skull was extremely brachycephalic. The hair, skin and nails were normal. The muscles were hypnotic. The mouth was normal. The serum had failed to react to the Wassermann test. There was no evidence of hypothyreoidism, but the mother had been very pleased with the progress the child had made under treatment with thyreoid extract and mercury.

### Mixed Mongolism and Cretinism.

Dr. Crisp's third patient was a male child, aged two years. The child had been very backward since birth and was not able to sit up. One lower incisor tooth had been cut at the age of eighteen months and since that date only two upper molars had appeared. The child dribbled a lot and there was a tendency to lolling out of the tongue. He had been breast-fed for the first twelve months of life and then had been fed on a mixed diet. The mother had had ten other children which were all normal. The patient was the eleventh. There had been no miscarriages. The father had two other children by a first wife. One of these had died at birth. Dr. Crisp pointed out that the child had a general appearance suggesting an age of twelve months. Slanting Mongolian eyes were present with double congenital cataract. Strabismus and rolling nystagmus were also noticeable. The nasal bridge was depressed and the child had chronic nasal snuffles. The palate was not unduly arched nor was the tongue unduly large or roughened. The fontanelle was widely open and the skull was of the brachycephalic type. The hair of the scalp and eyebrows was coarse and scanty and very dry. The skin was very harsh, dry and scaly and desquamation was occurring on the face. The hands were broad and spade-like and the little fingers were short and curved in an inward direction. The nails were normal. General hypotonia of the musculature was present. The abdomen was not prominent and the liver and spleen were not enlarged. The serum had failed to react to the Wassermann test. Dr. Crisp expressed the opinion that there was apparently an extreme grade of idiocy. Practically no improvement in the condition had resulted from the use of thyreoid extract although the dose had been increased to 0.12 gramme three times a day.

### Chronic Nasal Diphtheria.

Dr. Crisp's fourth patient was a female baby aged ten months. Snuffling had commenced when the child was two months old. It was said that a large pad of adenoids had been removed in Sydney when three months old and that slight improvement had resulted. Chronic nasal discharge and snuffling had continued and had become worse for one month before coming under observation. The discharge had consisted of thick yellowish or greenish, viscid material and on one occasion a small piece of bone had come away from the nose with the discharge. The family history was unknown as the child had been adopted soon after birth. Examination had revealed a well nourished though flabby baby. She had not been ill nor had she shown signs of toxæmia. She had sat up and played brightly. It had been evident that mild rickets was present. No teeth had been present. The head had been bossed and sweating had been very noticeable. The muscles had been flabby and hypotonic. Chronic respiratory obstruction had been manifested by a sternal depression of the chest with a definite Harrison's sulcus and eversion of the costal margins. No beading of the ribs had been manifest. The tonsils had been enlarged and infected. Crusts had been present round the nostril and respirations had been snuffly and stridulous. The serum had failed to react to the Wassermann test. Klebs-Löffler bacilli had been found in a swabbing taken from the nose. Dr. Crisp said that it was exceedingly rare for nasal diphtheria to be accompanied by such a degree of ulceration as to cause caries of the nasal cartilages. Such a condition was almost invariably due to syphilis. The nasal condition had almost entirely cleared up with routine treatment with antitoxin and nasal douching.

### Congenital Syphilis.

Dr. Crisp showed a fifth patient, a girl, aged eight years. She had been admitted to the Infectious Diseases Hospital with a diagnosis of laryngeal diphtheria and had been treated for this, although no diphtheria bacilli had been found on examination of swabbings from the throat. She had been kept there for three weeks and had then been discharged apparently cured. Three weeks later she had been readmitted with a similar condition. Stridor, harsh cough and slight chest retraction had been present. Redness of the fauces and pharynx had been found, but no membrane. Stomatitis and septic carious dental stumps had been present. All the glands on both sides of the neck had been enlarged on this occasion, even those in the posterior triangle. No diphtheria bacilli had been found in the swabbings, though many examinations were made. The breathing had improved without the administration of further antitoxin and she had been transferred to the Children's Hospital eight weeks prior to demonstration. On admission to the Children's Hospital she had had wheezing respirations and rhonchi had been present. All the glands of the neck had been enlarged. The glands in the groin had been palpable, but no clinical evidence of the presence of glands in the chest or elsewhere had been forthcoming. The spleen had not been enlarged. Examination of the blood had shown the red cells to number 4,500,000 to each cubic millimetre. The white cells had numbered 5,000 and the hæmoglobin value had been 85%. The appearance of the blood film had been normal. The diagnosis had been considered as resting between Hodgkin's disease and infective adenoids from the upper part of the respiratory tract and from septic teeth. These were subsequently removed. Examination of the serum by the Wassermann test had yielded a complete reaction. The enlargement of the glands had gradually subsided under antisyphilitic treatment.

### Osteo-Myelitis of the Femur.

Dr. Crisp also showed a female patient, aged five years, who had been admitted to hospital five weeks after a kick above the knee from a horse. The condition on admission had been one of sinus formation with superficial suppuration. The child had been acutely ill with septicæmia. The knee joint had been swollen. Acute tenderness had been present with some thickening of the lower end of the femur. At operation an osteo-myelitis of the whole of the shaft of the femur had been found. The bone had been opened from the lower to the upper epiphysis and the shaft with the exception of a posterior bridge had been removed. Bismuth, iodoform and paraffin paste had been applied and the whole wound had been packed with gauze. The middle portions of the long wound had been sutured. The knee on aspiration had been found to con-

tain slightly turbid fluid; it had not been opened. There had been much periarthritis. A Thomas's splint with a foot piece had been applied and an anæsthetic had been given every third day for the dressing of the wound. A solution of carbolic acid in a strength of one in forty had been used for irrigating the wound and the iodoform packs had been renewed. Practically no further pus had appeared and the wound had healed from the bottom in less than four months. The knee joint had become painful on attempting to walk and a Thomas's knee splint with walking calipers had been applied. The boot of the unaffected leg had been built up for two and a half centimetres on account of lengthening of the affected leg. Dr. Crisp thought that this had probably been due to the increased blood supply to the epiphyses which were evidently uninjured. In his opinion this case illustrated the good results that might be obtained from a radical primary operation in which as much as possible of the diseased bone was removed.

### Congenital Abnormalities.

Dr. Crisp demonstrated the congenital deformities of a child, aged three and a half years. There was absence of both lower extremities which were represented by a very small bud about 1.75 centimetres in diameter on each side. There was also an absence of the right forearm and hand. The limb terminated at the position of the elbow in a regular rounded end. Dr. Crisp pointed out that no other abnormalities were present with the exception of a deficient calcification of the teeth. It was for this condition that she had been brought to hospital.

### Congenital Pyloric Stenosis.

Another patient shown by Dr. Crisp was a male infant, aged seven weeks. Vomiting had been present almost incessantly since birth. It occurred at varying intervals after feeds and at times was forcible. The child had not been fed at the breast. For the first three days of life he had existed on brandy and water. After this time the diet had consisted of "Lactogen" for a period of five weeks. Nestlé's milk had been used for a week and then "Glaxo" had been tried. Apparently the child was retaining this better than any of the other foods. The patient was the only child of healthy parents. Dr. Crisp drew attention to the wasted appearance of the infant and said that after a feed typical gastric peristaltic waves could be seen. Vomiting was typically projectile. When anæsthetized by chloroform an olive-shaped mass could be felt in the region of the pylorus. There had been no constipation, but the stools consisted merely of slime and intestinal secretions. It was proposed to perform a Rammstedt operation almost immediately. Till then the feeds would consist of fifteen cubic centimetres of peptonized milk with sugar. If this were vomited its administration would be immediately repeated.

### Epilepsy.

Another female patient shown by Dr. Crisp was a girl, aged four and a half years. She had begun to have fits at the age of three and a half. There was a great variation in the character of the fits. Sometimes they resembled *petit mal* and sometimes convulsions were complete. Sometimes one side of the body was affected and sometimes another. In one fit observed at the hospital the spasm had been confined to the right side and had been followed in a few minutes by paresis of that side. The child had a voracious appetite. The mother had stated that the attacks had first started after swallowing a few beads from a tea cosy. The fits had continued in spite of limitation of the diet. Sometimes twenty or thirty fits occurred in a day and sometimes none occurred for several days. There was a tendency for constipation of the bowels and the fits seemed to be worse when constipation was present. There was no evidence of worms. The serum had failed to react to the Wassermann test. The father and mother and six other children were healthy. Examination of the skull by X-rays had failed to reveal any abnormality. The mental condition was deteriorating though she was very bright and playful between attacks. Treatment had been carried out by aperients and intestinal antiseptics together with bromides, borax and so forth. All treatment had been without effect on the fits. The prognosis appeared to be very grave.

### Sarcoma of the Fibula.

Dr. Crisp also showed a boy, aged eight years, whose leg had started to swell three weeks after a blow from an ax. He had been for two months in a country hospital where two operations had been performed. These had evidently consisted in incision and the removal of pieces of bone. The boy had been pale and very anæmic and wasted. Considerable swelling of the leg had been present in addition to the discharging sinus. Amputation had been performed above the knee five weeks before the meeting.

The specimen was demonstrated. Dr. Crisp pointed out that since that time the child had developed a slight strabismus which varied a good deal. Feverish attacks occurred and the patient complained of attacks of pain in the chest. A few nights previously he had awakened with a suffocative attack and had told the nurse that he thought he was falling through the floor. It appeared that he was getting secondary sarcomatous deposits in the brain and lung. Microscopical examination of the growth had revealed a typical round celled sarcoma. Skiagrams of the condition before operation were demonstrated.

### Cyst of Head of the Pancreas.

Dr. Crisp's last patient was a girl, aged three and a half years. She was an only child and had had no previous illness. Three months prior to admission to hospital she had had a sharp attack of abdominal pain and vomiting which had been diagnosed as gastritis. A few days later jaundice had commenced. Increase in the size of the abdomen had occurred without the occurrence of further pain or vomiting. The jaundice had persisted and there had been considerable variations in its intensity. The motions had been white and constipated. The child had been drowsy and had suffered from pruritus. The liver had extended eight centimetres below the costal margin. There had been no tenderness and the liver enlargement had apparently been more confined to the right lobe. The slightly distended gall bladder had been palpable. There had been no splenic enlargement and no ascites.

The urine had contained much bile and some casts and an occasional red blood corpuscle had been seen. The red cells had numbered 4,300,000 in each cubic millimetre and the white cells 7,300. The hæmoglobin value had been 90%. The blood film had been normal and no eosinophilia had been found. The serum had failed to react to the Wassermann test. A screen examination with X-rays had revealed only diffuse enlargement of the liver.

Dr. Ambrose had operated on the patient. He had found a diffusely enlarged liver and a slightly distended gall bladder. The common bile duct had been greatly distended in its upper portion. It had been obstructed in its lower portion by pressure or torsion from a large cyst in the region of the head of the pancreas. The cyst had been greenish in appearance and had resembled an enormous gall bladder. About half a litre of greenish fluid-like bile had been evacuated with trocar and canula. The bile duct had been opened and a probe, passed downwards, had entered the duodenum without difficulty. Apparently there had been no communication between the bile tract and the cyst which was adherent by its deep surface to the head of the pancreas. The fluid which was examined at Department of Public Health, had contained bile and pancreatic fluid. The cyst had been drained. At the time of demonstration the cyst was still draining and was discharging about half a litre of fluid daily. The jaundice had disappeared quickly after the operation. The liver had also returned to its normal size, but the child seemed to be failing gradually from inanition.

# Medico-Legal.

## THOMPSON *versus* THE AUSTRALASIAN MEDICAL PUBLISHING COMPANY, LIMITED, AND OTHERS.

(*Continued from page* 534.)

He then described to the jury what followed on the return of Mrs. Farr to the hospital. Mr. Watt stated that Dr. Thompson had not been frank either to the jury or to anyone else. He referred to the incident with Dr. Davidson and to the letter he had written to the newspapers and to his inquiries at the Chief Secretary's office. He dwelt for a little time on the attack made on Professor Farr and on the earlier history of Mrs. Farr. He claimed that Dr. Jeffreys had proved at the New Zealand commission that Professor Farr had been most solicitous regarding her welfare. Dr. Jeffreys had said that Professor Farr had never ceased to impress upon him that no expense was to be spared. He had suggested that she should consult a certain Mr. Fawcett, a sort of faith healer. Dr. Jeffreys had refused because he held that nothing could come of it, but the husband had said: "You tell me my wife's case is hopeless. For God's sake, don't prevent me trying every possible thing." Others had also given evidence in support of this.

It was a wicked, cruel lie to suggest that £600 had been paid to Dr. Sharp. No attempt had been made to withdraw the statement. In regard to the payment of £500 by Dr. Thompson to Mr. Gregg in connexion with the expenses incurred at the Farr inquiry, Mr. Watt held that there was no doubt at all that the plaintiff had thought that he would have been recouped. Firstly he had been under the impression that he would get the costs from the Government. Then his solicitor had got Mrs. Farr to sign two orders for £700 in all on the Public Trustee. Then he had thought that if her estate were released, he would not have been left out. He had also endeavoured to get her to make a second will. He would not sink so low as to make the charge against the plaintiff that his interference in this matter had been with the idea of making what he could out of her estate. But he asked the jury to compare such a charge with the charge the plaintiff had made against all these medical gentlemen. They had heard him say that he had simply passed these charges on: perhaps he had spoken a bit hastily and so on. In conclusion he expressed his conviction that they would find that the defendants had been justified in what they had published. But if they held that they had to go into the question of damages, he put it to them that the smallest coin in the realm was too large to give in recompense of the harm the plaintiff had suffered.

### The Reply for the Plaintiff.

In opening his address Mr. Holman pointed out that the real issue had been lost sight of in the mass of other things. The plaintiff came into the court because he had been robbed by the defendants, because they had published something about him which was defamatory and was not true. The defendants said that it was true, that it was a matter of public benefit to publish it and that it was fair comment. The real issue was whether it was true or not true. If some of the statements they had made about Dr. Thompson were true, he, Mr. Holman, would not have taken up the time of the court in arguing that it was not a matter of public interest. His Honour interposed the remark: "You admit that?" to which counsel replied in the affirmative. He repeated that if the statements were true, there must be a verdict for the defendants. Mr. Watt had explained that if the jury found that the statements were not true, they would be technically bound to give some sort of verdict for the plaintiff. But Mr. Watt claimed that Dr. Thompson was such a dishonest man that they could only give contemptuous damages. It had been claimed that he had taken up Mrs. Farr's cause not from any genuine anxiety to do any good or to remedy a public wrong, but to gain notoriety and advertisement for himself, possibly to obtain some control over the lady's actions and perhaps even to get the management of her estate into his own hands. Mr. Watt had further suggested that plaintiff without being a dishonest man, was a man reckless and indifferent to the truth or falsity of what he was bringing forth to the various authorities and that he had brought all this trouble on a large number of worthy people; for these reasons he had disentitled himself to any consideration, even if they found he had been wronged. Mr. Watt had further taken up a third attitude. He had said that the plaintiff was a man who freely and readily attacked others; what right had he to complain when he himself was attacked? If he had been wrongfully attacked, he had frequently wrongfully attacked others and once again that would be a ground for cutting his damages down to nothing.

Mr. Holman first dealt with Dr. Thompson's motives in endeavouring to secure an inquiry into the sanity or otherwise of Mrs. Farr. He maintained that he was a young, prosperous and rising professional man, living at peace with the world, without an enemy, enjoying the esteem and regard of all who came in touch with him. He was the last man who would need advertisement. He would not be likely to jeopardize his established and promising professional position. Mrs. Farr had come to him in the ordinary way and he had come to the conclusion that the case she had put to him, called for immediate investigation. That was on October 6, 1920. On October 9 he had seen her again and then she had disappeared from his ken for a considerable time. He continued his effort on her behalf. First of all he had gone to the Chief Secretary. Certain inquiries had been made privately in New Zealand, but these inquiries had led to nothing. Then he had gone to the Minister for Health who had listened sympathetically. The Minister had arranged that Dr. Thompson should have a permit to visit Mrs. Farr at Mount Saint Margaret's Hospital, but plaintiff had learned later that he could not get that permit. Then in the middle of November he had been introduced by political friends to the Premier. He had written a statement to Mr. Storey. Later he had taken a private deputation of local people to Mr. Storey. An inquiry in New Zealand had been offered, but Dr. Thompson had said that inquiries in New Zealand were no good. For three months he had not given the public one word of the matter. Nothing had appeared in the press. On February 17, after sundry interviews and attempts to obtain a hearing, he had been informed that the Government would do nothing. He had seen Professor Farr. The first action he had taken was when he had gone to the Executive of the Labour Party with the request that he join them in a deputation to the Premier. He had had two or three courses open to him, but at this time all these courses involved some publicity. He had reinforced his remarks at the deputation by writing to the papers. It was only after this had failed that he had taken action under Section 99 of the *Lunacy Act*. He asked the jury whether they could believe that Dr. Thompson had been seeking notoriety and advertisement. Mr. Holman said that in this democratic country, if a man wanted anything done, he had to take it to the man in politics. That was not making a political matter of it. He claimed that there was no evidence of dishonesty of motive. It had been said that Dr. Thompson had forced his way into the house on October 9 to see Mrs. Farr. The evidence showed that no one had refused him admission. He had been asked to call on Mrs. Farr and had been admitted to the house without difficulty by Mrs. Metcalfe, just as Mrs. Cook had been leaving for the All School Sports.

Mr. Holman referred to the use of the word surreptitious in connexion with certain letters which had passed between Dr. Thompson and Mrs. Farr. He claimed that there had been nothing surreptitious on plaintiff's part. Apparently Mrs. Farr had some need for some surreptitious conduct on her part; if this were so, it would be a great outrage. He also referred to what he described as a revolting suggestion about the medical examination made by Dr. Thompson on October 9, 1920. This was a matter that should not have been brought up after the evidence had

been closed. Counsel claimed that it should be treated with contempt.

Mr. Holman then referred to the comment that the writ had not been issued until April 5, 1923, although the article had appeared on June 25, 1921. The facts were as follows. Some little time after the publication Dr. Thompson had been expelled from the British Medical Association. Then he had brought an action against the New South Wales Branch of the British Medical Association and had got a verdict. There were appeal proceedings through the Appeal Court and the judgement of the court below had been reversed. Dr. Thompson was taking further proceedings before the Privy Council. The jury could understand that his time had been fully occupied and that his resources had been fully employed in fighting for his rights in the action. It was only when that was over and the appeal had been lodged before the Privy Council that he had been in a position to turn again to further wrongs that he considered he had suffered.

In the next place Mr. Holman dealt at great length with the question whether or not Dr. Thompson had been guilty of a deliberate wrong-headed antagonism to the clear judgement of his profession in the matter. In the first place he examined the evidence in connexion with the signs of insanity in Mrs. Farr when Dr. Thompson had first seen her. He had found her demeanour that of a sane and rational woman. He had seen documents which informed him that her solicitor and the Public Trustee were discussing business matters with her and asking her for instructions. Her letters were rational. At the Reception House plaintiff had further opportunity of making observations and had failed to detect any sign of madness. He had seen the statements of three medical men in New Zealand, Dr. Truby King, Dr. Jeffreys and Dr. Tizard. Dr. Thompson had arrived at the conclusion that she was not insane at that time. She might have been insane at a previous time and have recovered or those doctors might have made a mistake.

Mr. Holman argued that Dr. Thompson had been justified in refusing the diagnosis of *folie circulaire*, because this was an hereditary condition and the application for admission signed by Dr. Sharp bore the statement "No insanity in the family," because the disease was said to be progressive and this patient was getting better and because the so-called lucid intervals were only relative and the patient would be slightly mad during them, whereas this patient was quite sane at the times he had seen her. In the next place Mr. Holman examined the evidence of Professor Farr and of all the doctors in regard to the duration and sequence of the recurring phases. He maintained that there was no agreement as to the length of the manic and the depressive phases. Very few of them had seen the patient for a sufficiently long period to cover a complete cycle, which Professor Farr had said lasted about eighteen months. He dealt with the evidence in regard to the signs on which the diagnosis of circular insanity was made and dissected it. He found that the diagnosis rested chiefly on the history and he suggested that the history meant the passing on of the original statement of the friends to the first doctor who certified a patient. Having arrived at the point that there was extremely vague evidence to show that the patient had ever had this recurring form of insanity, Mr. Holman turned to the judgement of Mr. Justice Street. He pointed out that his client had gone to several alienists, but had not been able to persuade them to examine Mrs. Farr and give evidence at the inquiry. Dr. Nash, Dr. Arthur and Dr. Frazer had given evidence and they were not alienists. In these circumstances His Honour had said that he was clearly of opinion that he ought to be guided by the opinions expressed by the mental specialists who had inquired into her case. But, he said, they were not in the same position at this time and it was not the same issue that was being tried. The issue was whether Mrs. Farr's insanity was so obvious that it would be dishonesty on the part of Dr. Thompson to refuse to accept the conclusion of her sanity. He claimed that Dr. Thompson, Dr. Arthur, Dr. Nash and Dr. Frazer had been justified in coming to the conclusion that there was no evidence of insanity to be detected.

Having dealt with the question of the state of Mrs. Farr's mind and plaintiff's *bona fides* in concluding that she was sane, Mr. Holman discussed the manner in which the inquiry before Mr. Justice Street had been conducted. It had been urged that it was a sensational inquiry, that the newspapers had displayed large headlines and the like. Dr. Thompson had merely been a witness and could not be held responsible for all this publicity. Moreover, he had taken the precaution of going to a respectable solicitor and the latter had retained counsel of eminence.

It had been suggested that Dr. Thompson should have sought further information concerning Mrs. Farr's history. Mr. Holman asked the jury to consider what information plaintiff would have got had he gone to any of those who had been suggested. He dealt with the divergence of evidence between Dr. Thompson and Dr. Davidson. He asked the jury to believe that Dr. Davidson must have been mistaken that it was he who had invited Dr. Thompson to have a conversation on the Tuesday, for nothing would have been more in accord with what Dr. Thompson wanted. He was seeking information about Mrs. Farr.

Mr. Holman also referred to the official file of documents produced by the Under Secretary of the Premier's Department. He maintained that the only document of importance was the report from Dr. Jeffreys. One document by Dr. Eric Sinclair, made, no doubt, in good faith, referred to payments made by Professor Farr. Dr. Thompson had objected to confidential inquiries, because he recognized that if a confidential inquiry were made of Professor Farr concerning the charges which had been made by Mrs. Farr, he would deny them. Mr. Holman stated that Professor Farr had not denied the charges that he had prevented his wife from making a fresh will, because he would lose the benefit under the first will. Mr. Watt interposed that he had denied this and Mr. Holman read the evidence. Both counsel claimed that they were right. Mr. Holman called the attention of the jury to the infrequency of Professor Farr's visits to his wife and to the fact that Dr. Granville Sharp had not visited her for a considerable period.

Mr. Holman next dealt with Dr. Thompson's letter to the Premier. He read the letter and pointed out that part of it represented statements of his own. It was a proper request when he wrote: "I feel sure that you will not stand on ceremony where an alleged crime is being consummated and where a poor defenceless woman is being persecuted and robbed. In your action you would have the support of every decent man and woman in the community. I also ask you not to allow officials and private doctors to usurp the functions of the Government." Then follow statements of what Mrs. Farr had told him. The use of the term "it appears" was that he had learned these things from what Mrs. Farr had told him. He had used the first person once only in the letter. "I can also vouch for the fact that the conduct of this peculiar obnoxious woman was very remarkable and open to suspicion. The same remark applies to others." Mr. Holman maintained that this was merely comment upon his professional brethren and that it did not seem to him to be a charge of any kind. He said that the letter did not contain a solitary reckless or improper charge. Turning to the letter in the *Evening News*, the observation that it was an outrage that private doctors should have the power to imprison people and move them about at their sweet will, was plaintiff's honest opinion. He was entitled to think that it was an outrage.

Mr. Holman concluded his address by surveying the article and commenting on it. The first part was permissible. Newspapers could comment as cruelly and severely as they pleased, as long as the comment was based upon an accurate statement of the facts and was the comment of an honest and not of a malicious mind. Turning to the second part he said that newspapers could not under any pretext of uttering comment, utter lies. He submitted that Dr. Thompson had not insinuated himself between a medical practitioner and his patient. The lady had come to him and he had gone to the house on her invitation. He had not defied all the rules of medical ethics. There was not a scrap of evidence to show that he had done so. He had not followed her from pillar to post. Dr. Thompson had not attempted to set the authorities at naught; he

had been anxious to appeal to the authorities. There was no evidence that Dr. Thompson had levelled a charge on several medical practitioners of the highest repute and integrity on the statement of a patient of unsound mind and he had not been guilty of infamous conduct in a professional respect. Finally in regard to the statement that Dr. Thompson should be required to defend himself on a charge of a serious breach of medical ethics, he said that the Medical Board had full power to act and that board had taken no action. Mr. Holman asked the jury to give the plaintiff very heavy damages.

### The Judge's Summing-up.

His Honour Mr. Justice James started his summing up at about half-past three on October 3 and concluded it at just after midday on October 4, 1923. He pointed out that the jury were not trying whether Mrs. Farr was sane or insane, nor whether Dr. Thompson was right in what he did or in his opinion nor whether Dr. Thompson should be expelled or struck off the rolls as a medical practitioner. The matter was simply a question of libel, that was whether THE MEDICAL JOURNAL OF AUSTRALIA had published an article which had brought the plaintiff into public hatred, ridicule and contempt. A libel was a written or printed statement concerning the plaintiff which was likely to bring him into public hatred, ridicule or contempt and which was published without lawful justification. There was no need to define a libel more closely than that. If they came to the conclusion that the article had been published by the defendants and that it was calculated to bring the plaintiff into hatred, ridicule and contempt and that he had suffered damage from it, the plaintiff's case would be proved. The plaintiff had to prove that. Once the plaintiff had proved it, they would have to see whether the defences set up had cleared the defendants from the charge or from the cause of action. Having set out who were the plaintiff and the defendants, His Honour referred to the article. He would not read it all through, but would limit himself to the allegations which seemed to him to be allegations that were capable of being held by them to be libellous. It was his function to say if they were capable of being held to be libellous and it was for the jury to say whether they were. The first statement to which he called their attention was: "The weakness of the provisions contained in Section 99 lies in the fact that any busybody, without any knowledge of psychiatry, without a legal training and without even a modicum of common sense or judgement, may set a cumbrous piece of legal machinery in motion." That was a statement which they might or might not think applied to the plaintiff. If they did not think that it applied to him, they could pass it by. If they thought it applied to him, then the term busybody applied to a leading medical practitioner might be only a term of abuse, but if taken in conjunction with the next part, they might say that it was libellous. Certainly it was capable to being held to be libellous. The following sentences were statements of fact and His Honour said that he had no doubt that the Judge had said what was contained in the article. The reference to Section 99 was a comment and they had to view all the circumstances in that connexion. Then came the sentence: "The Judge commented in no uncertain terms on the intemperate, unjustifiable and cruel action of the applicant, Dr. G. S. Thompson." The Judge did comment in that way. Then followed a part that was partly a statement of fact and partly a comment, which was apparently justified on the Judge's report. "Instead of being a safeguard, Section 99 threatens to become a disturbing element in lunacy legislation. No need exists for this kind of interference with a department in which the dictates of humanity are pre-eminently conserved." "Well, we may not agree with that, but at any rate that does not affect Dr. Thompson, the plaintiff; but as men of common sense one might be justified in doubting that statement 'no need exists for that kind of interference with a department in which the dictates of humanity are pre-eminently conserved,' because these departments make mistakes just the same as anybody else—barristers, solicitors and doctors included." The rest of the paragraph was a statement of fact with which they might not agree, but it did not affect Dr. Thompson.

"The Farr case calls for comment in another direction. Apart from the medico-legal aspect, there is the medico-ethical. Dr. George Stanley Thompson on his own showing has followed a course which would have resulted in the removal of his name from the register of medical practitioners, had the incidents happened in Great Britain." That was a statement of mixed fact and comment. Was not that a statement which could have done a medical practitioner a great deal of harm? It was a statement that was capable of being held to be libellous. *Prima facie* it was libellous to say that. It was for the jury to say whether it was. His Honour held that the statements that the plaintiff had insinuated himself between a medical practitioner and his patient, that he had defied all the rules of medical ethics and had sought to follow the patient from pillar to post were capable of being held to be libellous. His Honour said that there might be a little sting in the phrase: "Foiled in his endeavour." Continuing it was said that Dr. Thompson had written to the Premier of New South Wales a letter containing allegations against Professor Farr and those who were advising him. "To allege that Professor Farr was conspiring with others to keep Mrs. Farr in a hospital for the insane for personal gain is so scandalous a charge that His Honour felt constrained to rebuke Dr. Thompson in terms such as 'perversion of the real facts,' 'extraordinary and inflammatory language.'" There again was a mixture of comment and fact. It apparently set out that for Dr. Thompson to say that Professor Farr had been conspiring with others to keep Mrs. Farr in a hospital for the insane for personal gain and so on. That Dr. Thompson had been so rebuked by His Honour they would find in the report. The following sentence was a comment made on which was alleged to be the facts, that Dr. Thompson had levelled a charge of this kind and the comment was that having done that, he had been guilty of infamous conduct in a professional respect. That was a serious thing. It was undoubtedly capable of being held to be a libel. In the next sentence the defendants alleged that whatever the allegations were which had been made by Dr. Thompson, they were obviously unjustifiable and unwarranted. "The honour and dignity of the medical profession is involved in this case and we do not hesitate to state that Dr. Thompson should be required to defend himself on a charge of a serious breach of medical ethics." That might lead them to think that the plaintiff had done something which was so serious, that he should be called on to show cause why he should not be struck off the roll of medical practitioners. Those were the statements which were capable of being held to be libellous and the jury would have to determine whether they were libellous and had damaged the plaintiff. All they had to do was to read these statements as reasonable business men and give them a reasonable meaning. If they found that there was a libel, they would have to turn to the defence to see whether the defendants had set up anything that took away from them the liability which fell upon them owing to what the plaintiff had proved. The plaintiff must prove his case.

His Honour dealt with the question of printing and publication. That had been proved.

The defendants first of all set up that they were not guilty. Then they relied on another defence under that plea of not guilty which enabled the defendants to set up that what they had published was fair comment upon facts truly stated. For comment to be fair, it must first of all be upon facts which were substantially truly stated and which were proved to be true. When His Honour said substantially, he meant that the truth of each fact must be substantially proved to the jury, though it was not necessary to go into every small trifling detail. The comment must be such as would fairly and reasonably arise from those facts. So that in order for the defendants to succeed under their plea of fair comment and their plea of not guilty, they must first of all satisfy the jury that those facts with which he had dealt, had been substantially proved and that the comment in the journal on those facts had been fairly and reasonably made.

On resuming on the morning of October 4, His Honour passed on to the next defence on the file. It was that the matters charged so far as they were facts, were true in

substance and in fact and so far as they were comments on those facts, that they were fair comment. The defendants went on to say that it was for the public benefit that the said matters should be published. His Honour examined the matters which should, according to the defendants, be published for the public benefit. It was claimed that the treatment of the insane and the conduct of public asylums for the insane was a matter of public importance; that it was for the benefit of the public to know that plaintiff's conduct as a registered medical practitioner in making charges of misconduct against other medical practitioners in respect of treatment of lunatics and the Judge's comments thereon after public inquiry and the Judge's findings respecting the administration of the lunacy laws in New South Wales. His Honour was of opinion that all the matters set out in the plea would be of public benefit. For instance when they heard that people were "signed up" in nine minutes, this was a matter that might be discussed, whether a person in nine minutes even with the previous history could give any proper opinion as to whether another person was insane or was not insane. Dr. Davidson and Dr. Chisholm Ross had said that it would depend entirely on the condition in which the patient was. His Honour also found that there would be little difficulty in concluding that the treatment of the insane was a matter of public interest. In regard to the plaintiff's conduct, he held that if this were merely a personal matter between the plaintiff and the other medical practitioners, he would not be prepared to rule that it was in the public interest that it should be published. If they held that what had been said in the article was only expressed by the defendants in following out an article dealing with the administration of asylums and the relation of medical practitioners to these asylums, then it could undoubtedly be a matter of public interest that one medical practitioner said of others that their course in dealing with certain patients had not been proper. In closing this part of his remarks, His Honour pointed out that the jury would have to deal with the defendants in the same way as the plaintiff. All either of them had to do was to weigh down the scales in their minds after having considered all the evidence and all the comments. His Honour then dealt with the question of fair comment by citing cases from law books. In Lord Halsbury's Laws of England the matter was set out in the following terms:

> In the first place the matter defended as comment must be comment and not mere assertion of fact. Comment must not be so mixed up with facts that the reader cannot distinguish between what is comment and what is not. In the second place the comment must be comment on a matter of public interest. Whether or not the subject matter of the comment or criticism is a matter of public interest is a question of law for the judge. The comment must not misstate facts, because a comment cannot be fair which is built upon facts not truly stated and, if a defendant cannot show that his comment contains no misstatements of fact, he cannot prove a defence of fair comment.

That was why he had not endorsed all Mr. Watt had said about being substantially true. All the facts must be substantially proved.

Applying himself to the article again he told the jury that they could read the first sentence to which he had directed their attention to apply to the plaintiff, by connecting it with the following sentence. They had to say whether there was a reference to the plaintiff. There was no doubt that it was a fact that the Judge commented in no uncertain terms on the intemperate, unjustifiable and cruel action of the applicant. Coming to the other aspect of the case, had the defendants made out that the plaintiff had followed a course which would have resulted in the removal of his name from the medical register? He proposed to deal with that point later. Did Dr. Thompson defy all the rules of medical ethics and seek to follow the patient from pillar to post in the vain attempt to set the authorities at naught and to secure her freedom? Did Dr. Thompson allege that Professor Farr had conspired with others and was that so scandalous a charge? He had already pointed out that the jury might think that His Honour had rebuked Dr. Thompson for perversion of the real facts and for extravagant and inflammatory language. In the next place the author of the article said that Dr. Thompson had levelled such a charge and therefore he was guilty of infamous conduct in a professional respect. His Honour said that infamous conduct in a profession respect might be quite different from infamous conduct in the ordinary sense of the word. An act done by a medical man might be infamous, though the same act performed by anyone else would not be. On the other hand an act which was not done with professional respect would not come within this provision. For instance it would be regarded as infamous conduct for a medical practitioner to advertise his skill as a surgeon, but he might write a novel and advertise it. If the jury thought that Dr. Thompson had gone out of his way and unjustifiably attacked his brother practitioners, whatever his motives might be, it might be infamous conduct in a professional respect and the comments made might be justified. In regard to the words, "would have resulted in the removal of his name," that was a matter for the jury. If the conduct were infamous it might have done so. The defendants said "which would have." His Honour instructed the jury not to confound the Medical Board with the Council of the New South Wales Branch of the British Medical Association. The Council which had expelled Dr. Thompson from the British Medical Association, had nothing to do with the Medical Board which dealt under the New South Wales act with matters such as this. When once that Board held a matter to be infamous, no court could interfere, because it left the professional men themselves the right of deciding what was infamous conduct in a professional respect.

*(To be continued.)*

## LILIAN COOPER FUND.

THE following additional subscriptions have been received to the fund to defray the expenses incurred by Dr. Lilian Cooper in a recent action at law (see THE MEDICAL JOURNAL OF AUSTRALIA, October 6, 1923, page 375):

*Five Guineas.*—Dr. H. B. Ellerton, Dr. F .H. V. Voss.

*Three Guineas.*—Dr. J. W. Heaslop.

*Two Guineas.*—Dr. G. H. Vernon, Dr. E. H. Beaman, Dr. J. E. Streeter, Dr. A. Hornibrook, Dr. Robina Harlin, Dr. F. W. Harlin, Dr. W. F. Taylor, Dr. E. Burton Reed.

*One Guinea.*—Dr. John Hughes, Dr. M. Graham Sutton.

# Obituary.

## FRANK WESLEY NOBLE.

THE announcement of the death of Dr. Frank Wesley Noble, of Glen Osmond, South Australia, which occurred on November 10, 1923, is made with regret.

Frank Wesley Noble was the son of Mr .W. A. Noble, of Toowoomba, Queensland, and was born on May 24, 1890. He was educated at Toowoomba Grammar School. Having determined to study medicine he went to Scotland and become an undergraduate at the Aberdeen University. He spent part of his student life at the Middlesex Hospital. Before the conclusion of his course war broken out and Frank Wesley Noble was one of the first to volunteer. He enlisted in the Royal Army Medical Corps and went to France as a dresser attached to the Australian Voluntary Hospital. During the retreat from Mons this unit was situated at St. Nazaire and its members took an active part in clearing the wounded from this famous engagement.

It was after this that together with other medical students Frank Wesley Noble was recalled to England to

finish his course. He graduated as bachelor of medicine and bachelor of surgery at Aberdeen University in 1915 and was appointed House Surgeon at King Edward the Seventh Hospital. On account of bad health he was compelled to refuse a commission in the Royal Army Medical Corps and he came out to Australia as medical officer of a transport.

After discharge from the Army Frank Wesley Noble took up practice in Broken Hill, New South Wales, and remained there for three years. Subsequently he removed to Glen Osmond, South Australia, and here he practised for three and a half years until his death from bronchopneumonia. A sound practitioner, respected by his fellows and beloved by those who knew him, his death will be a loss to the medical profession of South Australia. The sympathy of many will be extended to his widow and four children.

## Post-Graduate Work.

### THE MATHISON LECTURE.

THE first Mathison Lecture will be delivered by Professor W. A. Osborne in the Physiology Lecture Theatre at the University of Melbourne on November 29, 1923, at eight o'clock in the evening. The subject of the lecture will be: "Some New Aspects of Respiration." The audience will be restricted to members of the medical profession to whom a cordial invitation to attend is extended. The importance of a proper understanding of the physiology and biochemistry of respiration to the medical practitioner is obvious. Professor Osborne has made important contributions to this knowledge and will embody the results of his work in his lecture. It is anticipated that there will be a large audience at the lecture, more especially because medical practitioners realize that sound practice is that which is based on the foundation of physiological facts.

## Proceedings of the Australian Medical Boards.

### NEW SOUTH WALES.

THE undermentioned have been registered, under the provisions of the *Medical Act, 1912 and 1915*, as duly qualified medical practitioners:

AMPHLETT, JULIA LEONIE, M.B., Ch.M., 1923 (Univ. Sydney), 28, Crow's Nest Road, North Sydney.

DUNCOMBE, CEDRIC, M.B., Bac. Surg., 1922 (Univ. Melbourne), Broken Hill.

FLEMING, WILLIAM ALBERT, M.B., Bac. Surg., 1922 (Univ. Melbourne), Broken Hill.

GRANT, FRANK JOHN AUDAS, M.B., Bac. Surg., 1922 (Univ. Melbourne), Wodonga.

KEYES, DAVID TYRRELL, M.B., Bac. Surg., 1916 (Univ. Melbourne), Tibooburra.

KNEEBONE, JOHN LE MESSURIER, M.B., Bac. Surg., 1911 (Univ. Adelaide), F.R.C.S., 1921 (Eng.), Mast. Surg., 1921 (Adelaide), Broken Hill.

LAURENCE, CHARLES SYDNEY, L.M.S.S.A., 1923 (Lond.), Woonona Avenue, Wahroonga.

POTTS, WALTER ALFRED BEEVOR, L.S.A., 1882 (Lond.), M.R.C.S., 1886 (Eng.), Casino.

## Books Received.

A TREATISE ON THE DISEASES AND INJURIES OF THE RECTUM, ANUS AND PELVIC COLON, by J. Rawson Pennington, M.D., F.A.C.S.; 1923. Philadelphia: P. Blakiston's Son and Company; Demy 8vo., pp. 945, illustrated. Price: $12.00.

BERGEY'S MANUAL OF DETERMINATIVE BACTERIOLOGY, Arranged by a Committee of the Society of American Bacteriologists; 1923. Baltimore, U.S.A.: Williams and Wilkins Company; Demy 8vo., pp. 454. Price: $5.75.

## Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C.

| BRANCH. | APPOINTMENTS. |
|---|---|
| NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney | Australian Natives' Association<br>Ashfield and District Friendly Societies' Dispensary<br>Balmain United Friendly Society's Dispensary<br>Friendly Society Lodges at Casino<br>Leichhardt and Petersham Dispensary<br>Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney<br>Marrickville United Friendly Societies' Dispensary<br>North Sydney United Friendly Societies<br>People's Prudential Benefit Society<br>Phœnix Mutual Provident Society |
| VICTORIA: Honorary Secretary, Medical Society Hall, East Melbourne | All Institutes or Medical Dispensaries<br>Australian Prudential Association Proprietary, Limited<br>Mutual National Provident Club<br>National Provident Association |
| QUEENSLAND: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane | Brisbane United Friendly Society Institute<br>Stannary Hills Hospital |
| SOUTH AUSTRALIA: Honorary Secretary, 12, North Terrace, Adelaide | Contract Practice Appointments at Renmark<br>Contract Practice Appointments in South Australia |
| WESTERN AUSTRALIA: Honorary Secretary, Saint George's Terrace, Perth | All Contract Practice Appointments in Western Australia |
| NEW ZEALAND (WELLINGTON DIVISION): Honorary Secretary, Wellington | Friendly Society Lodges, Wellington, New Zealand |

## Diary for the Month.

Nov. 27.—New South Wales Branch, B.M.A.: Medical Politics Committee; Organization and Science Committee.
Nov. 29.—South Australian Branch, B.M.A.: Branch.
Nov. 30.—New South Wales Branch, B.M.A.: Branch.
DEC. 4.—New South Wales Branch, B.M.A.: Ethics Committee.
DEC. 5.—Victorian Branch, B.M.A.: Annual General Meeting.
DEC. 5.—South Sydney Medical Association, New South Wales.
DEC. 11.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
DEC. 12.—Western Australian Branch, B.M.A.: Council.
DEC. 12.—Melbourne Pædiatric Society.
DEC. 14.—New South Wales Branch, B.M.A.: Branch.
DEC. 14.—Queensland Branch, B.M.A.: Annual Meeting.
DEC. 14.—South Australian Branch, B.M.A.: Council.
DEC. 18.—New South Wales Branch, B.M.A.: Medical Politics Committee; Organization and Science Committee.
DEC. 19.—Victorian Branch, B.M.A.: Council.
DEC. 20.—City Medical Association.
DEC. 27.—South Australian Branch, B.M.A.: Branch.

## Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to "The Editor," THE MEDICAL JOURNAL OF AUSTRALIA, B.M.A. Building, 30-34, Elizabeth Street, Sydney. (Telephone: B. 4635.)

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